

REGISTERED AS A NEWSPAPER



Allen @ Hanburys Ltd.

MALT © OIL EXTRACT OF MALT.
COD LIVER OIL EMULSION.
COMPOUND SYRUP of FIGS. CHEMICAL FOOD, etc.

Supplied with Chemist's own Name and Address.

REQUEST Allen & Hanburys Ltd., London. PRICES ON See our inset in this Issue.



UMNEY'S Choice Synthetics

"ROSETTOL"

A true Rose Odour, 17/6 per oz.

"ROSETTOL," first in the field, still holds first place amongst the synthetic rose products.

A PHARMACIST'S OPINION:

"Rosettol is better than any other artificial otto that I have tried."

GEORGE LUNAN, F.C.S., Pharmaceutical Chemist, Edinburgh.

PRESS OPINIONS:

"Consumers have long recognised the superlative merit of Rosettol, and buyers will find that for delicacy, permanence and faithfulness to the natural product it is hard to beat."

The British and Colonial Pharmacist.

"When the firm's Rosettol was first introduced, we were much impressed by its excellent qualities, and thought it was, in fact, an improvement upon the natural otto; we think so still."

The Pharmaceutical Journal,

As Specialists in the department of Synthetic Perfumes, we also give the benefit of our experience in the following:—

Nerolettol - - - 6/6 oz. - - Really replaces Neroli Oil.

Violonol - - - 10/6 oz. - - A natural and synthetic violet product (blended).

Jasminettol - - 10/6 oz. - The true subtle odour of the flower.

Benzoinettol - - 5/- oz. - A base for Eastern type perfumes.

Muscol - - - 3/6 oz. - A highly concentrated Musk odour.

UMNEY'S PERFUMERY PRODUCTS were awarded GRAND PRIX, Turin International Exhibition, 1911. GOLD MEDAL, Brussels International Exhibition, 1910.

WRIGHT, LAYMAN & UMNEY, Ltd., Southwark, London, S.E.

SOMETHING NEW and very necessary.

Goudron Pastilles

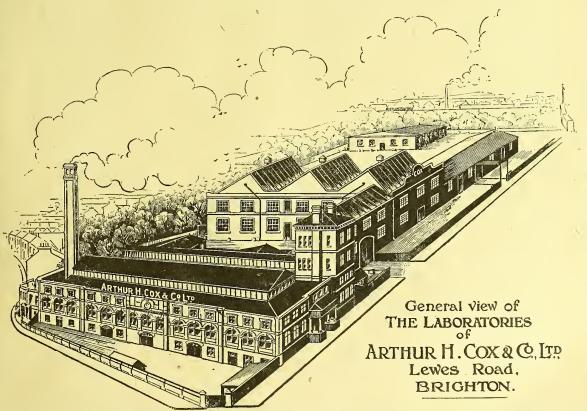
The Tablets are small-but most efficient, containing Pure Norwegian Pine Tar in a granulous state; they act direct upon the mucous membranes.

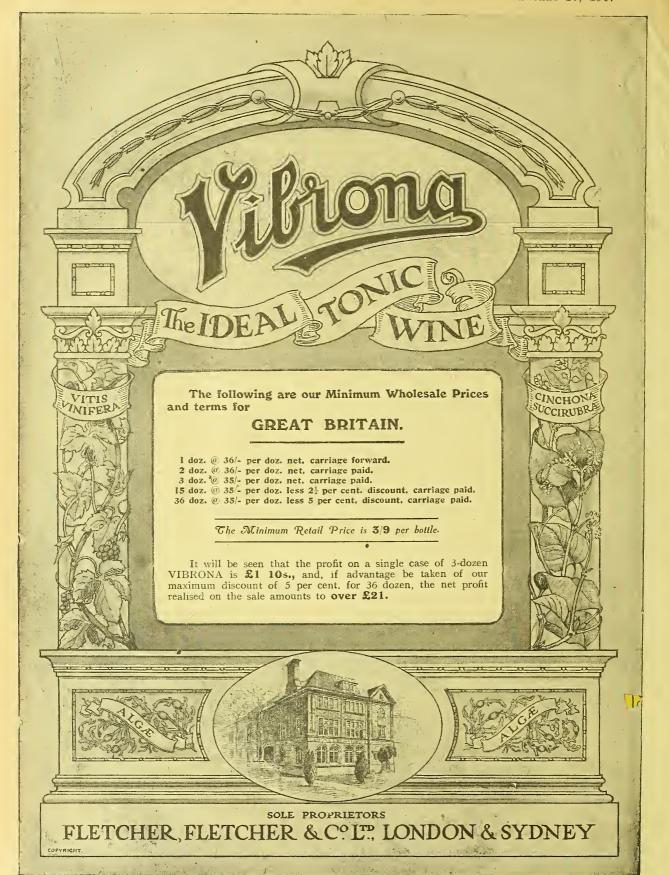
Packed in smart outers of six. Name and address on orders for 3 dozen lots. **Powerful Window Slip** provided with all orders.

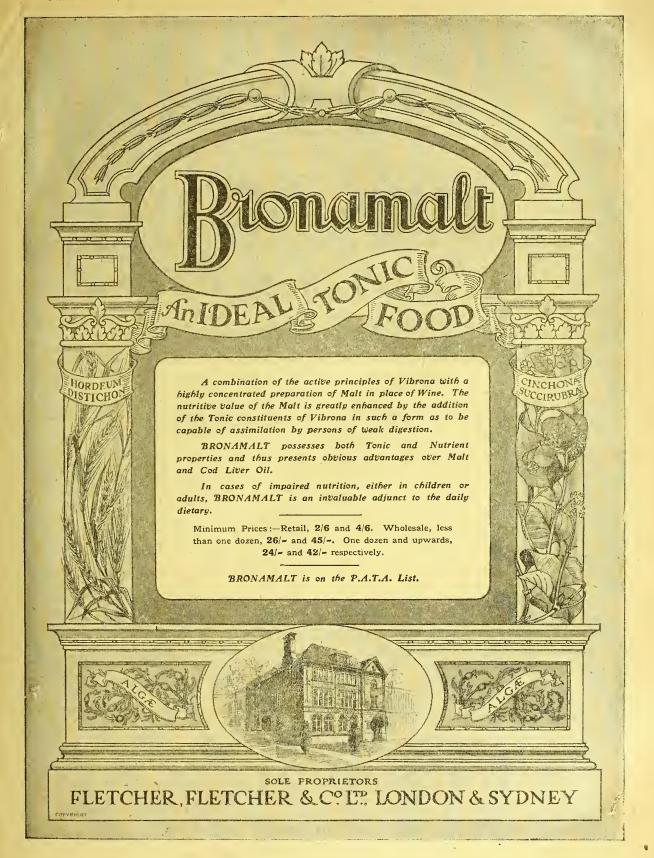
PRICE 4/per dozen.

They are splendid for Coughs, Colds, Bronchitis, Gatarrh, Asthma, etc. etc. One Chemist, when sending a repeat order, said: "I put the display box on the front counter yesterday dinner-time—to-night (8.30 p.m.) I find I have sold 11 boxes."

The label is in English, with a side panel in French.









CORVUSINE D.G.

The Farmer's Greatest Friend

SAVES HIM POUNDS FOR EVERY SHILLING SPENT.

Known and used yearly by thousands of Farmers.

ARE YOU AN AGENT?

If not, you are losing a most lucrative business, and it will pay you to-day to write for terms and to fix up at once for the Spring trade.

We advertise extensively. We give liberal terms.

Remember!

CORVUSINE D.G.

has a very ready sale. You only have to hand it over the counter.

Particulars and terms from the Manufacturers:

HAWKER & BOTWOOD, LTD.

59 Mark Lane - London, E.C.

INDEX TO ADVERTISERS IN THIS ISSUE.

For more complete Buyers' Guide see "The Chemist & Druggist" Diary, 1917.

ALBERT & CO. Proprietary Ointment 100 ALLOCK MANUFACTURING CO., Plasters, &c. 200 ALLEN & HANBURYS, Ld., Packed Goods, Cover, 87, Inset
ALLEN & HANBURYS, Ld., Packed Goods. Cover. 87. Inset ALLEN, STAFFORD, & SONS, Ld., Essential Oils,
Drug Grinding, &c. 45, 51 ALLJANCE DRUG & CHEMICAL CO., Drugs, Chemicals 183
AMERICAN BUREAU OF FOREIGN TRADE Chemicals, Drugs, &c. 133
AMERICAN DRUG SUPPLY CO American Pro-
prictaries
ANGLO-RUSSIAN TRADING CO., Cantharides 212
ARMOUR & CO., Ld., Rennet
BAILEY, W.H., & SON, Elastic Hosiery, Suspensories, Trusses 202
BAISS BROS. & CO., Ld., Drugs, Chemicals112, 113 BAKER, PARSON C., Chemists' Valuer
BANDUENG QUININE FACTORIES, Quinine Salts 148 BARNETT & VOSTER, Aerated Water Macbinery, "Boloble Essences." BARRACLOUGH, J., & CO., Packed Goods 211 BARRETT R. H., Ld., Classware 206 BARTOLINE (Hull), Ld., White Oils, Lanoline 156 BATTAM & HEY WOOD, Valuers, &c., Col. Supp. BEATSON, CLARK & CO., Ld., Spitting Cups 191 BEECHAM, THOMAS, Pill4 182 BEETHAM, M., & SON, Tollet Articles 63 BENGER'S FOOD, Ld., Foods. BENGER'S FOOD, Ld., Foods. Machlory 100
BARRACLOUGH, J., & CO., Packed Goods 211
BARTOLINE (Hull), Ld., White Oils, Lanoline
BEATSON, CLARK & CO., Ld., Spitting Cups 191 BEECHAM, THOMAS, Pills 182
BEETHAM, M., & SON, Tollet Articles
BENNETT, 80NS & SHEARS, Ld., Pharmaceutical Machhery. 100 BERDOE & FISH, Chemists' Valuers, &c
BERTON, ARTHUR, Id, Surgical Dressings
BIRMINGHAM & MIDLAND COLLEGE 18 BISHOP, ALFRED, Ld., Effetvescent Proprietaries 64
BLACKIE, ROBERT, Ointments, &c
BOAKE ROBERTS, A., & CO., Ld., Chemicals, Essences 35 BOEHM, F., Ld., Chemicals, Olive Oil, Essential Oils 145
BOMBAY AGENTS' CO., East Indian Agencles
BRAND & CO., Ld., Foods, Meat Extracts 80 BRITISH DIAMALT CO., Foods 154
BRITISH LANOLINE CO., Lanoline
BRITISH OPTICAL INSTITUTE, Optical Tuition 19 - BRITISH ORGANOTHERAPY CO., Ld., Organo-
therapeutic Preparations
Waxes 148 REPONNIEW H & CO. Id Perlying Scara Livet
BROOKS, PEEL & CO., Ld., Collapsible Tubes 74 BROWN, B., & BRO., Drugs, Chemicals, Vegetable Oils 181
BROWNING, W., & CO., Emulsions, Paraffinum Liquidum 172 BRUNNER, MOND & CO., Ld., AlkaliesInset
BURGE, WARREN & RIDGLEY, Ld., India Rubber Goods, Air Cushions, Anti-Rheumatic Rings 200
BURGUINE, BURBIDGES & CO., Chemicals (fine), Druggists' Sundries, Pharmaceuticals
WARES A REPINITOR CO., Tetrobelli Schrift Schrift Report Schrift Report Schrift Report Schrift Report Repor
50, Text 100 BURROUGHS WELLCOME & CO., 'Tabloid' Preps. 120, 121, 122 123
BUSH, H. W., & CO., Ld., Druggists' Sundries, Graduated Measures
BUTCHER, W., & SONS, Ld., Photographic Goods 20 BUTLER, E. H., & SON, Acetanlide, Aniline Dyes 168 CARMEGIE BROS., Chemicals, Surgical Dressings 194, 195 CARTWEIGHT A S. Ld. Indiarrabber Tests 190
CELLONITE CO. (DREYFUS & CO.), Acetic Anhy-
CHATELAIN, J. L., French Medicinal Proprietaries 147 CHESEBROUCH MNFG. CO., Vaseline and Preps. 57 CHESTER, A. D., & CO., I.d., Chemicals 215 CHRISTY, T., & CO., Toilet Articles, Tartar Remover
CLAYON & JOWETT, Ld. Essences Inset
COLLEGE OF OPTICS, Optical Tuitiou 19 COLLEGE OF PRECEPTORS 20
COOK, E., & CO., Ld., Soaps, Perfumery, &c
COX, A. H., & CO., Ld., Pills, Tablets
Importers, Ld.), Sponges, Loofalis
DAISY, Ld., Headache P vders
DAVIES, SONS & CO., Malt Extracts, Packed Goods
DEMUTH'S LABORATORIES, Toilet Articles
DODGE & OLCOTT CO., Balsams, Essential Oils. 41 DORE, JOHN, & CO., Stills 103
DRYSDALE, J. W., & SONS, Balsams, Chemicals
Bacterial Vaccines, Galenicals

EDWARDS, W., & SON, Ld., Proprietaries, Sundries ELLISON, H., Ld., Disinfectants	24 212
ENO, J. C., Ld., Fruit Salt	188 42
ESSONA PERFUMERY CO., Toilet Articles EUCRYL, Ld., Dentifrices	34 56
EVAN-WILLIAMS CO. Henna Shampoo EVANS, ADLARD & CO., M.d., Filter Papers EVANS SONS LESCHER & WEBB, Ld., Chemicals,	63 nset
Pharmacenticals, Druggists' Spindries, Serums,	
. 150, 154, 164, 173, 204, 210,	21 8 92
EXPERT (LOOSE LETTER) SIGN CO	24 208
FARRIS, CHARLES, Beeswax, Spermaceti, White Oils	165
FARROW & CO., Glass Bottles	196 132
FELLOWS MEDICAL MFG. CO., Medicinal Syrups FIELD, C. W., Ld., Saponine FINK, F., & CO. Cums FLETCHER, FLETCHER & CO., Ld., Liquors 2, 3, Text	92
FLETCHER, FLETCHER & CO., Ld., Liquors 2, 3, Text	100
FORD, SHAPLAND & CO., Chemists' Printing	$\frac{23}{103}$
FORWOOD BROS. & DONALDSON, Ld., Carmiue FRAME FOOD CO., Ld., Foods	47 85
FRAME FOOD CO., Ld., Foods FRANSES, J. J., & SONS, Waxes FREUDENTHEIL & CO. Drugs, Chemicals, &c.	154
FULLAVOOD, R. J. & BLAND, Annacto, Butter-colouring	136 80
GALBRAITH, R. D., & CO., Castor Oils	$\frac{215}{212}$
GARDNER, W., & SONS (Gloucester), Ld., Grinding and Mixing Machinery. GATHERGOOD'S, Dr. B., W., EXOR., Crude Drugs	104
GATHERGOOD'S, Dr. B. W., EXOR., Cride Drugs	$\frac{170}{36}$
GARDNER, W., & SONS (Gloucester), Ld., Grinding and Mixing Macliniery, EXOR., Crude Drugs (HBRS, D. & W., Ld., Toilet Soaps, &c GIGNOUX FRERFS & CO., French Specialities CHMER, W., & SON, Crepe Bandages GLOBE BOX CO., Cartons, Collapsible Boxes GOLIDEEG, I. L., Santonine	$\frac{167}{200}$
CIMBER, W. & SON, Crepe Bandages GLOBE BOX CO., Cartons, Collapsible Boxes. GOLDBERG, I. L., Santonne. GOOD ALL, BACKHOUSE & CO., Facked Goods, Herbs. OUUCH, KIDSTON & CO., Cheukeals.	153
OOUOH, KIDSTON & CO., Chemicals	185
OD A DOUBLE D. T.J. Claubelle Acid &c.	180 nset
GREEF, R. W., & CO., Chemicals (Fine & Technica) I GREER, J. BARCHAM, & SON, IA., Tablet Modifies GRIFFIN, J. J., & SON, IA., Tablet Modifies. CUEST, THOS., & CO., LA., Medicated Lozenges GUMMED PAPERS, I.d., Scaling Machine.	$\frac{206}{108}$
GUEST, THOS., & CO., Ld., Medicated Lozenges GUMMED PAPERS, Ld., Scaling Machine	$\frac{77}{207}$
HALL FORSTER & CO., Ld., Toilet Articles HALL, LEONARD, & CO., Honey	206 91
HAMMOND JEFFERY & CO., Ld., Chemicals	$\frac{150}{178}$
HARKER, C. R., STAGG & MORGAN, Ld., Hair	
Dyes, Packed Goods, Galenicals5.	4 55
Dyes, Packed Goods, Galenicals HARLEY, T., Rat Poison HARRING FON BROS., Ld., Technical Chemicals	211 156
Dyes, Packed Goods, Galenicals HARLEY, T., Rat Poison HARRING FON BROS., Ld., Technical Chemicals HARRING N, ALF., & SONS, Chemists' Printing HARVEY & CO. (Duhlin), Ld., Veterinary Medicines	198 207
Dyes, Packed Goods, Galenicals BARLEY, T., Rat Poison HARRING FON BROS., Ld., Technical Chemicals HARRISON, ALF., & SONS, Chemists' Printing BARVEY & CO. (Dublin), Ld., Veterinary Medicines HARRISON, & R. Ld., Brugs, Chemicals HAWRER & BOTWOOD, Ld., Wheat Dressing JAWALE & SOTWOOD, Ld., Wheat Dressing	198 207 184 4
Dyes, Packed Goods, Galenicals BARLEY, T., Rat Poison HARRING FON RROS., Ld., Technical Chemicals HARRING FON RROS., Ld., Technical Chemicals HARRING, ALF., & SONS, Chemicals BARVEY & CO. Quallin, Ld., Veterinary Medicines HATRICK, W. & R. Ld., Drugs, Chemicals HAWKER & BOTWOOD, Ld., Whosat Dressing HAY.W., Ld., Soluble and Fruit Essences HAYNES, G., & CO., Surgical Dressings. HAWWOOD, J. W. Ld., Artificial Limbs, Sperical HAWWOOD, J. W. Ld., Artificial Limbs, Sperical	198 207
BARLEY, T., Rat Poison HARRING FON BROS., Ld., Technical Chemicals HARRING FON BROS., Ld., Technical Chemicals HARRISON, ALF., & SONS, Chemolsts' Printing BARVEY & CO. (Dublin), Ld., Veterinary Medicines HATRICK, W. & R., Ld., Brugs, Chemicals HAYRICK, W. & R., Ld., Drugs, Chemicals HAYRICK, W. & BOTWOOD, Ld., Wheat Dressing HAY, W., Ld., Soluble and Fruit Essences BAYNES, G., & CO., Surgical Dressings HAYWOOD, J. H., Ld., Artificial Limbs, Surgical	198 207 184 4 94
BARLEY, T., Rat Poison HARRING FON BROS., Ld., Technical Chemicals HARRING FON BROS., Ld., Technical Chemicals HARRISON, ALF., & SONS, Chemolsts' Printing BARVEY & CO. (Dublin), Ld., Veterinary Medicines HATRICK, W. & R., Ld., Brugs, Chemicals HAYRICK, W. & R., Ld., Drugs, Chemicals HAYRICK, W. & BOTWOOD, Ld., Wheat Dressing HAY, W., Ld., Soluble and Fruit Essences BAYNES, G., & CO., Surgical Dressings HAYWOOD, J. H., Ld., Artificial Limbs, Surgical	198 207 184 4 94 212 204 128 184 212
BARLEY, T., Rat Poison HARRING FON BROS., Ld., Technical Chemicals HARRING FON BROS., Ld., Technical Chemicals HARRISON, ALF., & SONS, Chemolsts' Printing BARVEY & CO. (Dublin), Ld., Veterinary Medicines HATRICK, W. & R., Ld., Brugs, Chemicals HAYRICK, W. & R., Ld., Drugs, Chemicals HAYRICK, W. & BOTWOOD, Ld., Wheat Dressing HAY, W., Ld., Soluble and Fruit Essences BAYNES, G., & CO., Surgical Dressings HAYWOOD, J. H., Ld., Artificial Limbs, Surgical	198 207 184 4 94 212 204 128 184
BARLEY, T., Rat Poison HARRING FON BROS., Ld., Technical Chemicals HARRINGON, ALF., & SONS, Chemolst' Printing BARVEY & CO. Qualillin, Ld., Veterinary Medicines HATRICK, W. & R., Ld., Drugs, Chemicals HATRICK, W. & R., Ld., Drugs, Chemicals HAYKER & BOTWOOD, Ld., Wheat Dressing HAY, W., Ld., Soluble and Fruit Essences HAYWOOD, J. H., Ld., Artificial Limbs, Surgical Instruments HENRY, T. & W., Calcined Magnesia HENRY, T. & W., Calcined Magnesia HIBBERT, F. I., Acetylsalicylic Acid, Phenacetin HIGGIN, Ld., Vulcanite Goods HILLCREST OIL CO. (Bradiord), Ld., Lanoline HOBBS, W. H., & CO., Ld., Chemicals, Perfumery Prods. HOLT THOMPSON & CO., Salicylic Sol., Solic Sol., Solic S	198 207 184 4 94 212 204 128 184 212 129 39 176 160
BARLEY, T., Rat Poison HARRING FON BROS., Ld., Technical Chemicals HARRING FON BROS., Ld., Technical Chemicals HARRING & CO. (Dublin), Ld., Veterinary Medicines HATRICK, W. & R., Ld., Drugs, Chemicals HAWKER & BOTWOOD, Ld., Wheat Dressing HAY, W., Ld., Soluble and Fruit Essences HAYES, G., & CO., Surgical Dressings	198 207 184 4 94 212 204 128 184 212 129 39 176 160 126 81
BARLEY, T., Rat Poison HARRINGFON BROS., Ld., Technical Chemicals HARRINGON, ALF., & SONS, Chembsts' Printing BARVEY & CO. Qualihi, Ld., Veterinary Medicines HATRICK, W. & R., Ld., Drugs, Chemicals HAYRICK, W. & R., Ld., Drugs, Chemicals HAWKER & BOTWOOD, Ld., Wheat Dressing HAY, W., Ld., Soluble and Fruit Essences HAYWOOD, J. H., Ld., Artificial Limbs, Surgical Instruments HISTORY, T. & W., Calcined Magnesia HIBBERT, F. I., Acetylsalicylic Acid, Phenacetin HIGGIN, Ld., Vulcanite Goods HILLOREST OHL CO. (Bradiord), Ld., Lanoline HOBBS, W. H., & CO., Ld., Chemicals, Perfumery Prods. HOLT, THOMPSON & CO., Salicylic Acid HOMMELTS, Dr., Haenatogen HOPKIN & WILLIAMS, Ld., Re agents, Solvents, &c. HORLICK'S MALTED MILK CO., Foods HORNE, W. C., Luminous Paint HOSPITALS & GENERALL CONTRACTS CO., Ld.	198 207 184 4 94 212 204 128 184 212 129 376 160 126 81 212 213
BARLEY, T., Rat Poison HARRING FON BROS., Ld., Technical Chemicals HARRINGON, ALF., & SONS, Chenolsts' Printing BARVEY & CO. (Dublin), Ld., Veterinary Medicines HATRICK, W. & R., Ld., Drugs, Chemicals HATRICK, W. & R., Ld., Drugs, Chemicals HAYNES, G., & CO., Sungical Dressings HAY, W., Ld., Soluble and Fruit Essences HAYWOOD, J. H., Ld., Artificial Limbs, Sorgical Instruments HENRY, T. & W., Calcined Magnesia HENRY, T. & W., Calcined Magnesia HIBBERT, F. I., Acetylsalicytic Acid, Phenacetin HIGGIN, Ld., Vulcanite Goods HILLOREST OIL CO. (Bradiord), Ld., Lanoline HOBBS, W. H. & CO., Ld., Chemicals, Performery Prods. HOILT, HIOMPSON & CO., Salicytic Acid HOPKIN & WILLIAMS, Ld., Re agents, Solvents, &c. HORLICK'S MALTED MILK CO., Foods HORNE, W. C., Luminous Paint HOSPITALS & GENERAL CONTRACTS CO., Ld. HOSUGH HOSEASON & CO., Ld., Enemas, &c.	198 207 184 4 94 212 204 128 184 212 129 39 176 160 126 81 212
BARLEY, T., Rat Poison HARRING FON BROS., Ld., Technical Chemicals HARRINGON, ALF., & SONS, Chenolsts' Printing BARVEY & CO. (Dublin), Ld., Veterinary Medicines HATRICK, W. & R., Ld., Drugs, Chemicals HATRICK, W. & R., Ld., Drugs, Chemicals HAYNES, G., & CO., Sungical Dressings HAY, W., Ld., Soluble and Fruit Essences HAYWOOD, J. H., Ld., Artificial Limbs, Surgical Instruments HENRY, T. & W., Calcined Magnesia HENRY, T. & W., Calcined Magnesia HIBBERT, F. I., Acetylsalicytic Acid, Phenacetin HIGGIN, Ld., Vulcanite Goods HILLOREST OIL CO. (Bradiord), Ld., Lanoline HOBBS, W. H. & CO., Ld., Chemicals, Perfumery Prods. HOLT, THOMPSON & CO., Salicytic Acid HOPKIN & WILLIAMS, Ld., Re agents, Solvents, &c. HORLICK'S MALTED MILK CO., Foods HORNE, W. C., Luminous Paint HOSPITALS & GENERAL CONTRACTS CO., Ld. HOUGH, HOSEASON & CO., Ld., Lanolin, Pills, &c. HOWARD LLOYD & CO., Ld., Lanolin, Pills, &c. HOWARD LLOYD & CO., Ld., Lanolin, Pills, &c.	198 207 184 4 94 212 204 128 184 212 129 39 176 160 126 81 212 213 201 134
BARLEY, T., Rat Poison HARRING FON BROS., Ld., Technical Chemicals HARRINGON, ALF., & SONS, Chenolsts' Printing BARVEY & CO. (Dublin), Ld., Veterinary Medicines HATRICK, W. & R., Ld., Drugs, Chemicals HATRICK, W. & R., Ld., Drugs, Chemicals HAYNES, G., & CO., Sungical Dressings HAY, W., Ld., Soluble and Fruit Essences HAYWOOD, J. H., Ld., Artificial Limbs, Surgical Instruments HENRY, T. & W., Calcined Magnesia HENRY, T. & W., Calcined Magnesia HIBBERT, F. I., Acetylsalicytic Acid, Phenacetin HIGGIN, Ld., Vulcanite Goods HILLOREST OIL CO. (Bradiord), Ld., Lanoline HOBBS, W. H. & CO., Ld., Chemicals, Perfumery Prods. HOLT, THOMPSON & CO., Salicytic Acid HOMMEL'S, Dr., Haematogen HOPKIN & WILLIAMS, Ld., Re agents, Solvents, &c. HORLICK'S MALTED MILK CO., Poods HORNE, W. C., Luminous Paint HOSPITALS & GENERAL CONTRACTS CO., Ld. HOBOGH, HOSEASON & CO., Ld., Lanolin, Pills, &c. HOWARD LLOVD & CO., Ld., Lanolin, Pills, &c. HOWARDS & SONS, Ld., Cinchoual Preps., Quinine, Sodium Bicarbonate, Fine Chemicals HOYLE, J. & T. & CO. WIBBUCK, T. & SON, Ld., Zinc Oxide HUISKING, C. L. American Drugs, Chemicals, &c.	198 207 184 4 94 212 204 128 184 212 129 39 176 81 212 213 201 134
BARLEY, T., Rat Poison HARRING FON BROS., Ld., Technical Chemicals HARRINGON, ALF., & SONS, Chenolsts' Printing BARVEY & CO. (Dublin), Ld., Veterinary Medicines HATRICK, W. & R., Ld., Drugs, Chemicals HATRICK, W. & R., Ld., Drugs, Chemicals HAYNES, G., & CO., Sungical Dressings HAY, W., Ld., Soluble and Fruit Essences HAYWOOD, J. H., Ld., Artificial Limbs, Surgical Instruments HENRY, T. & W., Calcined Magnesia HENRY, T. & W., Calcined Magnesia HIBBERT, F. I., Acetylsalicytic Acid, Phenacetin HIGGIN, Ld., Vulcanite Goods HILLOREST OIL CO. (Bradiord), Ld., Lanoline HOBBS, W. H. & CO., Ld., Chemicals, Perfumery Prods. HOLT, THOMPSON & CO., Salicytic Acid HOMMEL'S, Dr., Haematogen HOPKIN & WILLIAMS, Ld., Re agents, Solvents, &c. HORLICK'S MALTED MILK CO., Poods HORNE, W. C., Luminous Paint HOSPITALS & GENERAL CONTRACTS CO., Ld. HOBOGH, HOSEASON & CO., Ld., Lanolin, Pills, &c. HOWARD LLOVD & CO., Ld., Lanolin, Pills, &c. HOWARDS & SONS, Ld., Cinchoual Preps., Quinine, Sodium Bicarbonate, Fine Chemicals HOYLE, J. & T. & CO. WIBBUCK, T. & SON, Ld., Zinc Oxide HUISKING, C. L. American Drugs, Chemicals, &c.	1984 2077 1844 44 944 2122 2044 1284 2123 1766 1266 81 2123 2134 127 2134 127
HARLEY, T., Rat Poison HARRING FON BROS., Ld., Technical Chemicals HARRINGON, ALF., & SONS, Chembats' Printing HARVEY & CO. (Dublin), Ld., Veterinary Medicines HATRICK, W. & R., Ld., Drugs, Chemicals HATRICK, W. & R., Ld., Drugs, Chemicals HAYNES, G., & CO., Surgical Dressings HAY, W., Ld., Soluble and Fruit Essences HAYWOOD, J. H., Ld., Artificial Limbs, Surgical Instruments HENRY, T. & W., Calcined Magnesia HIBERT, F. I., Acetylsalicylic Acid, Phenacetin HIGGIN, Ld., Vulcanite Goods HILLEREST OIL CO., (Bradiord), Ld., Lanoline HOBBS, W. H., & CO., Ld., Chemicals, Perfumery Prods. HOLT, THOMPSON & CO., Salicylic Acid HOMMEL'S, Dr., Haenatogen HOPKIN & WILLIAMS, Ld., Re agents, Solvents, &c. HORNE, W. C., Lumbous Faint HOSPITALS & GENERAL CONTRACTS CO., Ld. HOSPITALS & GENERAL CONTRACTS CO., Ld. HOWARD LOVID & CO., Ld., Landin Pills, c., HOWARD LOVID & CO., Ld., Landing Pills, c., HOWARD LOVID & CO., Ld., Cincloua Preps., Quinine, HOSRICK, T., & SON, Ld., Zinc Oxide HUISKING, C. L., Auerican Drugs, Chemicals, &c., HORISK, T., & SON, Ld., Zinc Oxide HUISKING, C. L., Auerican Drugs, Chemicals, &c., HORISK, G., & GON, Indigraibler Goods, Feats	198 207 184 4 4 94 4 212 204 128 1729 176 160 126 81 127 213 162 169 93 198 26
HARLEY, T., Rat Poison HARRING FON BROS., Ld., Technical Chemicals HARRINGON, ALF., & SONS, Chenolsts' Printing HARVEY & CO. (Dublin), Ld., Veterinary Medicines HATRICK, W. & R., Ld., Drugs, Chemicals HAYRER, & BOTWOOD, Ld., Wheat Dressing HAY, W., Ld., Soluble and Fruit Essences HAYWOOD, J. H., Ld., Artificial Limbs, Surgical Instruments HENRY, T. & W., Calcined Magnesia HENRY, T. & W., Calcined Magnesia HIBBERT, F. I., Acetylsalicytic Acid, Phenacetin HIGGIN, Ld., Vulcanite Goods HILLOREST OIL CO. (Bradhord), Ld., Lanoline HOBBS, W. H. & CO., Ld., Chemicals, Performery Prods. HOLT, THOMPSON & CO., Salicytic Acid HOMMEL'S, Dr., Haematogen HOPKIN & WILLIAMS, Ld., Re agents, Solvents, &c. HORLE, W. C., Luminous Paint HOSPITALS & GENERAL CONTRACTS CO., Ld. HOUGH, HOSEASON & CO., Ld., Lanolin, Pills, &c. HOWARD J.LOVD & CO., Ld., Lanolin, Pills, &c. HOWARDS & SONS, Ld., Cinchoua Preps., Quinine, Sodium Bicarbonate, Fine Chemicals MOYLE, J. & T. & CO. MUBBUCK, T., & SON, Ld., Zinc Oxide HUISKING, C. L., Autericau Drugs, Chemicals, &c. INGRAM, J. G., & SON, Indiarniber Goods, Teats INGRAM, J. G., & CO., Medical diassware JACKSON, ERNEST, & CO., Ld., Liquother Tablets	198 207 184 4 94 212 204 128 39 176 60 126 81 212 213 201 134 127 213 162 93 198 26 27 27 27 27 27 27 27 27 27 27 27 27 27
HARLEY, T., Rat Poison HARRING FON BROS., Ld., Technical Chemicals HARRINGON, ALF., & SONS, Chenolsts' Printing HARVEY & CO. (Dublin), Ld., Veterinary Medicines HATRICK, W. & R., Ld., Drugs, Chemicals HAYRER, & BOTWOOD, Ld., Wheat Dressing HAY, W., Ld., Soluble and Fruit Essences HAYWOOD, J. H., Ld., Artificial Limbs, Surgical Instruments HENRY, T. & W., Calcined Magnesia HENRY, T. & W., Calcined Magnesia HIBBERT, F. I., Acetylsalicytic Acid, Phenacetin HIGGIN, Ld., Vulcanite Goods HILLOREST OIL CO. (Bradhord), Ld., Lanoline HOBBS, W. H. & CO., Ld., Chemicals, Performery Prods. HOLT, THOMPSON & CO., Salicytic Acid HOMMEL'S, Dr., Haematogen HOPKIN & WILLIAMS, Ld., Re agents, Solvents, &c. HORLE, W. C., Luminous Paint HOSPITALS & GENERAL CONTRACTS CO., Ld. HOUGH, HOSEASON & CO., Ld., Lanolin, Pills, &c. HOWARD J.LOVD & CO., Ld., Lanolin, Pills, &c. HOWARDS & SONS, Ld., Cinchoua Preps., Quinine, Sodium Bicarbonate, Fine Chemicals MOYLE, J. & T. & CO. MUBBUCK, T., & SON, Ld., Zinc Oxide HUISKING, C. L., Autericau Drugs, Chemicals, &c. INGRAM, J. G., & SON, Indiarniber Goods, Teats INGRAM, J. G., & CO., Medical diassware JACKSON, ERNEST, & CO., Ld., Liquother Tablets	198 207 184 4 94 212 204 128 39 176 60 126 81 212 213 201 134 127 213 162 93 198 26 27 27 27 27 27 27 27 27 27 27 27 27 27
HARLEY, T., Rat Poison HARRING FON BROS., Ld., Technical Chemicals HARRINGON, ALF., & SONS, Chenolsts' Printing HARVEY & CO. (Dublin), Ld., Veterinary Medicines HATRICK, W. & R., Ld., Drugs, Chemicals HAYRER, & BOTWOOD, Ld., Wheat Dressing HAY, W., Ld., Soluble and Fruit Essences HAYWOOD, J. H., Ld., Artificial Limbs, Surgical Instruments HENRY, T. & W., Calcined Magnesia HENRY, T. & W., Calcined Magnesia HIBBERT, F. I., Acetylsalicytic Acid, Phenacetin HIGGIN, Ld., Vulcanite Goods HILLOREST OIL CO. (Bradhord), Ld., Lanoline HOBBS, W. H. & CO., Ld., Chemicals, Performery Prods. HOLT, THOMPSON & CO., Salicytic Acid HOMMEL'S, Dr., Haematogen HOPKIN & WILLIAMS, Ld., Re agents, Solvents, &c. HORLE, W. C., Luminous Paint HOSPITALS & GENERAL CONTRACTS CO., Ld. HOUGH, HOSEASON & CO., Ld., Lanolin, Pills, &c. HOWARD J.LOVD & CO., Ld., Lanolin, Pills, &c. HOWARDS & SONS, Ld., Cinchoua Preps., Quinine, Sodium Bicarbonate, Fine Chemicals MOYLE, J. & T. & CO. MUBBUCK, T., & SON, Ld., Zinc Oxide HUISKING, C. L., Autericau Drugs, Chemicals, &c. INGRAM, J. G., & SON, Indiarniber Goods, Teats INGRAM, J. G., & CO., Medical diassware JACKSON, ERNEST, & CO., Ld., Liquother Tablets	198 207 184 4 94 212 204 128 39 176 60 126 81 212 213 201 134 127 213 162 93 198 26 27 27 27 27 27 27 27 27 27 27 27 27 27
HARLEY, T., Rat Poison HARRING FON BROS., Ld., Technical Chemicals HARRINGON, ALF., & SONS, Chenolsts' Printing HARVEY & CO. (Dublin), Ld., Veterinary Medicines HATRICK, W. & R., Ld., Drugs, Chemicals HAYRER, & BOTWOOD, Ld., Wheat Dressing HAY, W., Ld., Soluble and Fruit Essences HAYWOOD, J. H., Ld., Artificial Limbs, Surgical Instruments HENRY, T. & W., Calcined Magnesia HENRY, T. & W., Calcined Magnesia HIBBERT, F. I., Acetylsalicytic Acid, Phenacetin HIGGIN, Ld., Vulcanite Goods HILLOREST OIL CO. (Bradhord), Ld., Lanoline HOBBS, W. H. & CO., Ld., Chemicals, Performery Prods. HOLT, THOMPSON & CO., Salicytic Acid HOMMEL'S, Dr., Haematogen HOPKIN & WILLIAMS, Ld., Re agents, Solvents, &c. HORLE, W. C., Luminous Paint HOSPITALS & GENERAL CONTRACTS CO., Ld. HOUGH, HOSEASON & CO., Ld., Lanolin, Pills, &c. HOWARD J.LOVD & CO., Ld., Lanolin, Pills, &c. HOWARDS & SONS, Ld., Cinchoua Preps., Quinine, Sodium Bicarbonate, Fine Chemicals MOYLE, J. & T. & CO. MUBBUCK, T., & SON, Ld., Zinc Oxide HUISKING, C. L., Autericau Drugs, Chemicals, &c. INGRAM, J. G., & SON, Indiarniber Goods, Teats INGRAM, J. G., & CO., Medical diassware JACKSON, ERNEST, & CO., Ld., Liquother Tablets	198 207 184 4 94 212 204 128 39 176 60 126 81 212 213 201 134 127 213 162 93 198 26 27 27 27 27 27 27 27 27 27 27 27 27 27
HARLEY, T., Rat Poison HARRING FON BROS., Ld., Technical Chemicals HARRINGON, ALF., & SONS, Chenolsts' Printing HARVEY & CO. (Dublin), Ld., Veterinary Medicines HATRICK, W. & R., Ld., Drugs, Chemicals HAYRER, & BOTWOOD, Ld., Wheat Dressing HAY, W., Ld., Soluble and Fruit Essences HAYWOOD, J. H., Ld., Artificial Limbs, Surgical Instruments HENRY, T. & W., Calcined Magnesia HENRY, T. & W., Calcined Magnesia HIBBERT, F. I., Acetylsalicytic Acid, Phenacetin HIGGIN, Ld., Vulcanite Goods HILLOREST OIL CO. (Bradhord), Ld., Lanoline HOBBS, W. H. & CO., Ld., Chemicals, Performery Prods. HOLT, THOMPSON & CO., Salicytic Acid HOMMEL'S, Dr., Haematogen HOPKIN & WILLIAMS, Ld., Re agents, Solvents, &c. HORLE, W. C., Luminous Paint HOSPITALS & GENERAL CONTRACTS CO., Ld. HOUGH, HOSEASON & CO., Ld., Lanolin, Pills, &c. HOWARD J.LOVD & CO., Ld., Lanolin, Pills, &c. HOWARDS & SONS, Ld., Cinchoua Preps., Quinine, Sodium Bicarbonate, Fine Chemicals MOYLE, J. & T. & CO. MUBBUCK, T., & SON, Ld., Zinc Oxide HUISKING, C. L., Autericau Drugs, Chemicals, &c. INGRAM, J. G., & SON, Indiarniber Goods, Teats INGRAM, J. G., & CO., Medical diassware JACKSON, ERNEST, & CO., Ld., Liquother Tablets	198 207 184 4 94 212 204 128 39 176 60 126 81 212 213 201 134 127 213 162 93 198 26 27 27 27 27 27 27 27 27 27 27 27 27 27
HARLEY, T., Rat Poison HARRING FON BROS., Ld., Technical Chemicals HARRINGON, ALF., & SONS, Chenolsts' Printing HARVEY & CO. (Dublin), Ld., Veterinary Medicines HATRICK, W. & R., Ld., Drugs, Chemicals HAYRER, & BOTWOOD, Ld., Wheat Dressing HAY, W., Ld., Soluble and Fruit Essences HAYWOOD, J. H., Ld., Artificial Limbs, Surgical Instruments HENRY, T. & W., Calcined Magnesia HENRY, T. & W., Calcined Magnesia HIBBERT, F. I., Acetylsalicytic Acid, Phenacetin HIGGIN, Ld., Vulcanite Goods HILLOREST OIL CO. (Bradhord), Ld., Lanoline HOBBS, W. H. & CO., Ld., Chemicals, Performery Prods. HOLT, THOMPSON & CO., Salicytic Acid HOMMEL'S, Dr., Haematogen HOPKIN & WILLIAMS, Ld., Re agents, Solvents, &c. HORLE, W. C., Luminous Paint HOSPITALS & GENERAL CONTRACTS CO., Ld. HOUGH, HOSEASON & CO., Ld., Lanolin, Pills, &c. HOWARD J.LOVD & CO., Ld., Lanolin, Pills, &c. HOWARDS & SONS, Ld., Cinchoua Preps., Quinine, Sodium Bicarbonate, Fine Chemicals MOYLE, J. & T. & CO. MUBBUCK, T., & SON, Ld., Zinc Oxide HUISKING, C. L., Autericau Drugs, Chemicals, &c. INGRAM, J. G., & SON, Indiarniber Goods, Teats INGRAM, J. G., & CO., Medical diassware JACKSON, ERNEST, & CO., Ld., Liquother Tablets	198 207 184 4 94 212 204 128 39 176 60 126 81 212 213 201 134 127 213 162 93 198 26 27 27 27 27 27 27 27 27 27 27 27 27 27
HARLEY, T., Rat Poison HARRING FON BROS., Ld., Technical Chemicals HARRINGON, ALF., & SONS, Chenolsts' Printing HARVEY & CO. (Dublin), Ld., Veterinary Medicines HATRICK, W. & R., Ld., Drugs, Chemicals HAYRER, & BOTWOOD, Ld., Wheat Dressing HAY, W., Ld., Soluble and Fruit Essences HAYWOOD, J. H., Ld., Artificial Limbs, Surgical Instruments HENRY, T. & W., Calcined Magnesia HENRY, T. & W., Calcined Magnesia HIBBERT, F. I., Acetylsalicytic Acid, Phenacetin HIGGIN, Ld., Vulcanite Goods HILLOREST OIL CO. (Bradhord), Ld., Lanoline HOBBS, W. H. & CO., Ld., Chemicals, Performery Prods. HOLT, THOMPSON & CO., Salicytic Acid HOMMEL'S, Dr., Haematogen HOPKIN & WILLIAMS, Ld., Re agents, Solvents, &c. HORLE, W. C., Luminous Paint HOSPITALS & GENERAL CONTRACTS CO., Ld. HOUGH, HOSEASON & CO., Ld., Lanolin, Pills, &c. HOWARD J.LOVD & CO., Ld., Lanolin, Pills, &c. HOWARDS & SONS, Ld., Cinchoua Preps., Quinine, Sodium Bicarbonate, Fine Chemicals MOYLE, J. & T. & CO. MUBBUCK, T., & SON, Ld., Zinc Oxide HUISKING, C. L., Autericau Drugs, Chemicals, &c. INGRAM, J. G., & SON, Indiarniber Goods, Teats INGRAM, J. G., & CO., Medical diassware JACKSON, ERNEST, & CO., Ld., Liquother Tablets	198 207 184 4 94 212 204 128 39 176 60 126 81 212 213 201 134 127 213 162 93 198 26 27 27 27 27 27 27 27 27 27 27 27 27 27
HARLEY, T., Rat Poison HARRING FON RROS, J. d., Technical Chemicals HARRINGON, ALF., & SONS, Chembaty Printing HARVEY & CO. (Dublin), Ld., Veterinary Medicines HATRICK, W. & R., Ld., Drugs, Chemicals HATRICK, W. & R., Ld., Drugs, Chemicals HAYNES, G., & CO., Sungical Dressings HAY, W., Ld., Soluble and Fruit Essences HAYNES, G., & CO., Sungical Dressings HAYWOOD, J. H., Ld., Artificial Limbs, Surgical Instruments HENRY, T. & W., Calcined Magnesia HIBBERT, F. I., Acetylsalicylic Acid, Phenacetin HIGGIN, Ld., Vulcanite Goods HIBLERTS OIL CO., (Bradiord), Ld., Lanoline HOBBS, W. H., & CO., Ld., Chemicals, Perfumery Prods. HOLT, HIDMPSON & CO., Salicylic Acid, HOMMEL'S, Dr., Haenatogen HOPKIN & WILLIAMS, Ld., Re agents, Solvents, &c. HORNE, W. C., Lumbnus Faint HOSPITALS & GENERAL CONTRACTS CO., Ld. HONGH, HOSEASON & CO., Ld., Enchous Prils, Co. HOWARD LOVD & CO., Ld., Laudin, Pills, cc. HOWARD LOVD & CO., Ld., Laudin, Pills, Co. HOWARD LOVD & CO., Ld., Laudin, Pills, Co. HOWARD LOVD & CO., Ld., Laudin, Pills, Co. HOWARD LOVD, Co., Ld., Low Cycle HUISKING, C. L., Aracted and Mineral Waters HORNEW, T., & SON, Ld., Zinc Oxide HUISKING, C. L., Aracted and Mineral Waters INGERM, J. G., & SON, Indiarniber Goods, Teats INTERNATIONAL, CHIEMICAL CO., Proprietaries 18AACS, I., & CO., Medical diasware 19AKSON, S., & CO. & Co., Ld., Laudin, Ld., Essential Oils JOB BROS. Cod Liver Oil, Newtonudland JOHNSON MATTHEY & CO., Ld., Rare Metals JOHNSON MATTHEY & CO., Ld., Rare Metals JOHNSON MATTHEY & CO., Ld., Rare Metals JOHNSON, W. M., & CO., Chris, Nepticings. Col. S KAY BROS., Ld., Cencents, Plycatchers, Proprietaries KERLY, C., Checker, C., Co., Co., Prils and Tablets LAMBERT, S., & CO., Optigs and Essential Oils LAMBERT, S., & CO., Co., Drugs and Essential Oils LAMBERT, S., & CO., Co., Drugs and Essential Oils LANG, JULES, & SON, Medical and Chemical Glassware	198 207 184 4 94 212 204 128 39 176 60 126 81 212 213 201 134 127 213 162 93 198 26 27 27 27 27 27 27 27 27 27 27 27 27 27
HARLEY, T., Rat Poison HARRING FON RROS, J. d., Technical Chemicals HARRINGON, ALF., & SONS, Chembaty Printing HARVEY & CO. (Dublin), Ld., Veterinary Medicines HATRICK, W. & R., Ld., Drugs, Chemicals HATRICK, W. & R., Ld., Drugs, Chemicals HAYNES, G., & CO., Sungical Dressings HAY, W., Ld., Soluble and Fruit Essences HAYNES, G., & CO., Sungical Dressings HAYWOOD, J. H., Ld., Artificial Limbs, Surgical Instruments HENRY, T. & W., Calcined Magnesia HIBBERT, F. I., Acetylsalicylic Acid, Phenacetin HIGGIN, Ld., Vulcanite Goods HIBLERTS OIL CO., (Bradiord), Ld., Lanoline HOBBS, W. H., & CO., Ld., Chemicals, Perfumery Prods. HOLT, HIDMPSON & CO., Salicylic Acid, HOMMEL'S, Dr., Haenatogen HOPKIN & WILLIAMS, Ld., Re agents, Solvents, &c. HORNE, W. C., Lumbnus Faint HOSPITALS & GENERAL CONTRACTS CO., Ld. HONGH, HOSEASON & CO., Ld., Enchous Prils, Co. HOWARD LOVD & CO., Ld., Laudin, Pills, cc. HOWARD LOVD & CO., Ld., Laudin, Pills, Co. HOWARD LOVD & CO., Ld., Laudin, Pills, Co. HOWARD LOVD & CO., Ld., Laudin, Pills, Co. HOWARD LOVD, Co., Ld., Low Cycle HUISKING, C. L., Aracted and Mineral Waters HORNEW, T., & SON, Ld., Zinc Oxide HUISKING, C. L., Aracted and Mineral Waters INGERM, J. G., & SON, Indiarniber Goods, Teats INTERNATIONAL, CHIEMICAL CO., Proprietaries 18AACS, I., & CO., Medical diasware 19AKSON, S., & CO. & Co., Ld., Laudin, Ld., Essential Oils JOB BROS. Cod Liver Oil, Newtonudland JOHNSON MATTHEY & CO., Ld., Rare Metals JOHNSON MATTHEY & CO., Ld., Rare Metals JOHNSON MATTHEY & CO., Ld., Rare Metals JOHNSON, W. M., & CO., Chris, Nepticings. Col. S KAY BROS., Ld., Cencents, Plycatchers, Proprietaries KERLY, C., Checker, C., Co., Co., Prils and Tablets LAMBERT, S., & CO., Optigs and Essential Oils LAMBERT, S., & CO., Co., Drugs and Essential Oils LAMBERT, S., & CO., Co., Drugs and Essential Oils LANG, JULES, & SON, Medical and Chemical Glassware	198 207 1844 212 204 128 212 129 120 126 213 146 212 213 146 212 213 162 213 162 213 162 213 162 213 162 213 162 216 216 216 216 216 216 216 216 216
BARLEY, T., Rat Poison HARRING FON RROS., I.d., Technical Chemicals HARRING FON RROS., I.d., Technical Chemicals HARRING CON RROS., I.d., Technical Chemicals HARVEY & CO. (Dublin), I.d., Veterinary Medicines HATRICK, W. & R., Ld., Drugs, Chemicals HAYRER, & BOTWOOD, I.d., Wheat Dressing HAY, W., I.d., Soluble and Fruit Essences HAYWOOD, J. H., Ld., Artificial Limbs, Surgical Instruments HENRY, T. & W., Calcined Magnesia, HIBERT, F. I., Acetylsalicylic Acid, Phenacetin HIBERT, F. I., Acetylsalicylic Acid, Phenacetin HIBERT, F. I., Acetylsalicylic Acid, Phenacetin HIGGIN, I.d., Vulcanite Goods HILLORES OIL, C., Gradiord), I.d., Lanoline HOBES, W., H. & CO., Ld., Chemicals, Perfumery Prods. HOMMEL'S. D. Haematogacy, I.d., Cond. HOMMEL'S. D. Haematogacy, I.d., Cond. HOPKIN & WILLIAMS, I.d., Re agenta, Solvents, &c. HORLICKS MALTED MILK GO, Foods HORNE, W. C., Laminous Paint HOSPITALS & GENERBAL CONTRACTS CO., I.d. HOUWARD LLOYD & CO., I.d., Lanolin, Pills, &c. HOWARD LLOYD & CO., I.d., Lanolin, Pills, &c. HOWARD LLOYD & CO., I.d., Lanolin, Pills, &c. HOWARD S. SONS, I.d., Cinchoua Preps., Quinine, Sodium Bicarbonate, Fine Chericicals HOYLE, J. & T., & CO. WUBBUCK, T., & SON, I.d., Janco Oxide HUISKING, C. L., American Drugs, Chemicals, &c. HORLICK, T., & SON, I.d., Lanolin, Pills, &c. NGRAM, J. G., & SON, I.d., Janc Oxide HUISKING, C. L., American Drugs, Chemicals, &c. HORLICK, T., & CO., Ld., Laquorice Tablets JAKSON, J., & CO., Mitcham Rd.), I.d., Essential Oils DB BROS. Cod Liver Oil, Newtoqualand JOHNSON & SONS (Mnig. Chts), I.d., Chemicals JONSPHS, PHILLIP, & SONS, I.d., Shophittings . Col. & KAY BROSS. Ld., Chements, Flycatchers, Proprietaries KENLT'S, Leicesterr, Cubes KELLAND, W. P., Safety Razors KENT G. B., & SONS, I.d., Ensilware (all kinds) . 6 KERFOOT, T., & CO., Chems, Pertoleum Jellies KILBY, H. & T., & CO. Ld., Alleysarsticides LANSON & CO., Chems, Pertoleum Jellies KIRBY, H. & T., & CO. Ld., Alleysarsticides	198 207 1844 212 2014 128 39 1766 213 2011 134 127 162 213 162 213 174 162 213 162 213 162 213 175 162 213 175 185 215 175 185 215 175 185 215 175 185 215 175 185 215 175 185 215 175 185 215 175 215 185 215 185 215 185 215 185 215 185 215 185 215 185 215 185 215 185 215 185 215 185 215 185 215 185 215 185 215 185 215 185 215 215 215 215 215 215 215 215 215 21
HARLEY, T., Rat Poison HARRING FON RROS, J. d., Technical Chemicals HARRINGON, ALF., & SONS, Chembaty Printing HARVEY & CO. (Dublin), Ld., Veterinary Medicines HATRICK, W. & R., Ld., Drugs, Chemicals HATRICK, W. & R., Ld., Drugs, Chemicals HAYNES, G., & CO., Sungical Dressings HAY, W., Ld., Soluble and Fruit Essences HAYNES, G., & CO., Sungical Dressings HAYWOOD, J. H., Ld., Artificial Limbs, Surgical Instruments HENRY, T. & W., Calcined Magnesia HIBBERT, F. I., Acetylsalicylic Acid, Phenacetin HIGGIN, Ld., Vulcanite Goods HIBLERTS OIL CO., (Bradiord), Ld., Lanoline HOBBS, W. H., & CO., Ld., Chemicals, Perfumery Prods. HOLT, HIDMPSON & CO., Salicylic Acid, HOMMEL'S, Dr., Haenatogen HOPKIN & WILLIAMS, Ld., Re agents, Solvents, &c. HORNE, W. C., Lumbnus Faint HOSPITALS & GENERAL CONTRACTS CO., Ld. HONGH, HOSEASON & CO., Ld., Enchous Prils, Co. HOWARD LOVD & CO., Ld., Laudin, Pills, cc. HOWARD LOVD & CO., Ld., Laudin, Pills, Co. HOWARD LOVD & CO., Ld., Laudin, Pills, Co. HOWARD LOVD & CO., Ld., Laudin, Pills, Co. HOWARD LOVD, Co., Ld., Low Cycle HUISKING, C. L., Aracted and Mineral Waters HORNEW, T., & SON, Ld., Zinc Oxide HUISKING, C. L., Aracted and Mineral Waters INGERM, J. G., & SON, Indiarniber Goods, Teats INTERNATIONAL, CHIEMICAL CO., Proprietaries 18AACS, I., & CO., Medical diasware 19AKSON, S., & CO. & Co., Ld., Laudin, Ld., Essential Oils JOB BROS. Cod Liver Oil, Newtonudland JOHNSON MATTHEY & CO., Ld., Rare Metals JOHNSON MATTHEY & CO., Ld., Rare Metals JOHNSON MATTHEY & CO., Ld., Rare Metals JOHNSON, W. M., & CO., Chris, Nepticings. Col. S KAY BROS., Ld., Cencents, Plycatchers, Proprietaries KERLY, C., Checker, C., Co., Co., Prils and Tablets LAMBERT, S., & CO., Optigs and Essential Oils LAMBERT, S., & CO., Co., Drugs and Essential Oils LAMBERT, S., & CO., Co., Drugs and Essential Oils LANG, JULES, & SON, Medical and Chemical Glassware	198 207 1844 212 2014 128 39 1766 213 2011 134 127 162 213 162 213 174 162 213 162 213 162 213 175 162 213 175 185 215 175 185 215 175 185 215 175 185 215 175 185 215 175 185 215 175 185 215 175 215 185 215 185 215 185 215 185 215 185 215 185 215 185 215 185 215 185 215 185 215 185 215 185 215 185 215 185 215 185 215 185 215 215 215 215 215 215 215 215 215 21

	LIVERPOOL TIN CANISTER CO., Decorated Tins	10)
	LIVERPOOL SCHOOL OF PHARMACY	13
	LIVERPOOL TIN CANISTER CO., Decorated Tins LIVERPOOL SCHOOL OF PHARMACY LLOYD, A. S., Shaving Crean LLOYD, A. MEE & Ct., Shaving Creau LLOYD, H. O., Advertsing Service	66 67
	LLOYD, AIMEE & U.C., Shaving Creato LLOYD, H. O., Advertising Service LOFTHOUSE & SALTMER, Ld., Foods, Asthma Remedi LONDON COLLEGE OF PHARMACY LORIMER, J., Foods, Antisepties, Perfumes 130 MCGOTTER, S. G., & CO., American Chemicals, &c. M'GLASHAN, D., Froit Driuk MCKESSON & ROBBINS, Capsuled Pills, Dentitrices MCQUEEN, D., & CO., Business Books MCQUEEN, D., & CO., Business Books MCGLE, Ledger MACK, J., Ledger MACK, J., Ledger MACK, J., Ledger MACKAN, J., F., & CO., Alkaloids, Chloroform Emetine Salts, Surgical Dressings MADERO BROS. INC., Chemicals, MAGNUS, MABEE & REYNARD INC., Essential Oils MALLINGKRODT CHEMICAL WORKS (Canada) Ld., Canadian and American Chemicals	nset
	LONDON COLLEGE OF PHARMACY	8 65
	LORIMER, J., Foods, Antiseptics, Perfumes 130	, 13
	M'GLASHAN, D., Fruit Drink	168
	McKESSON & ROBBINS, Capsuled Pills, Dentifrices	nse
	MACK J. Ledger Co., Bisiness Books	upp
	MACFARLAN, J. F., & CO., Alkaloids, Chloreform,	ււնին
	Einetine Salts, Surgical Dressings	145
	MAGNUS, MABEE & REYNARD INC., Essential Oils	3-
	MALLINCKRODT CHEMICAL WORKS (Canada) Ld.,	10/
	MANDALL & CO., Ld., Licoricine	76
	MALLINCKROIDT CHEMICAL WORKS (Canada) L1, Canadian and American Chemicals MANDALL & CO., Ld, Licoricine MANGOLD, C., & CO., Chlorates and Perchlorates MANSON, R., Indiarubber Coods MARKT & CO. (London), Ld., Rubher Sponges MARTINDALE, W., Chemicals (Technical and Fine) MASON BROS. & CHAPMAN, Catheters MAW, S., SON & SONS, Druggists' Sundries, Packed Goods, Surgleal Instruments, Vacuum Flasks. J MAWSON & CO., Capsules MAY, ROBERTS & CO., Ld., Anti-Vermin Belts.	186
	MARKT & CO. (London), Ld., Rubber Sponges	213
	MARTINDALE, W., Chemicals (Technical and Fine)	16
	MASON BROS. & CHAPMAN, Catheters	214
	Goods, Surgical Instruments, Vacuum Flasks 1	0, 11
	Goods, Surgical Instruments, Vacuum Flasks 19 MAWSON & CO., Capsules MAY, ROBERTS & CO., Ld., Anti-Vermin Belts, MAY, ROBERTS & CO., Ld., Anti-Vermin Belts, MELIN, C., & CO., Glassware A., Co., Flassware M., Charlett, C., & Co., Surgical Catgut, MIDGLEY, CHAS., Ld., Medicated Soaps MILLAR, A., & CO., Ld., Orange Quinine Wine. MILLS, H., Shopfithigs. MILLS, H., Shopfithigs.	147
	MEADE-KING. ROBINSON & CO., Petroleum Jellies	216
	MELIN, C., & CO., Glassware	196
	MERSON, G. F., & CO., Surgical Catgut.	214
	MIDGLEY, CHAS., Ld., Medicated Soaps	65
	MILLS, H., Shopfittings.	96 26
	MILNER'S CHEMICAL CO., Hat Cleaners, Insecticides	$\frac{52}{126}$
	MORRISON, R., & CO., Chemicals, Drugs	139
	MILLAR, A., & CÖ, Ld., Orange Quinine Wine. MILLS, H., Shopfittings. MILKER'S CHEMICAL CO., Hat Cleaners, insecticities MILKER'S CHEMICAL CO., Hat Cleaners, insecticities MONSANTO CHEMICAL WORKS, Glycerophosphates MORSAND CHEMICAL WORKS, Glycerophosphates MOTOSABURG CANABE, Japaoese Chemicals, Drugs. NAIDAURO CANABE, Japaoese Chemicals, Drugs. NAIDALA ANLIANE & CHEMICAL CO., Chemicals NATURAL FOOD CO., Ld., Foods (Special). NEWHALL & MASON, Botanic Drugs, Herb Extracts NEWBALL & MASON, Botanic Drugs, Herb Extracts NEWBERY, F., & SONS, Ld., Druggist' Sundries, Pro- prietaries.	169
	NATIONAL ANILINE & CHEMICAL CO., Chemical	150
	NATURAL FOOD CO., Ld., Foods (Special)	86
	NEWBALL & MASON, Botanic Drugs, Herb Extracts	72 90
	NEWBERY, F., & SONS, Ld., Druggista' Sundrles, Pro-	
	prietaries NIEUWHOF, SURIE & CO.,Lal., Casein NORTHERN COLLEGE OF PHARMACY NORTHERN TIN CANISTER WORKS	71 80
	NORTHERN COLLEGE OF PHARMACY	1.8
	OPPENHEIMER SON & CO. Ld. Bunglatiquids	108
	ORRIDGE & CO., Chemists' Valuers, &c	upp.
	OURY, MILLAR & CO., Celatines	164
	PAINE & CO., Ld., Malt Extracts	176
	PARKE, DAVIS & CO., Dentifrices, Packed Pharma-	157
	NOFTHERN TIN CANISTER WORKS OPPENHEIMER, SON & CO., Ld., By palatinoids ORRIDGE & CO., Chemists' Valuers, &c Col. S OURY, MILLAR & CO., Cetatines OWBRIDGE, W. T., Ld., Lung Tonle PAINE & CO., Ld., Malt Extracts PARKE, DAVIS & CO., Dentifries, Packed Pharmaceuticals, Serums, Tahlets 61, PASCALL, JAS., Ld., Medicated Confectionery PEARSON, E. T., & CO., Ld., Sallcylic Acid, Foeds PELLIOT, HENRI, & CLE. Citra Acid PERRY & HOPE, Ld., Malt Extract Preps. PETRI BROS., Chemicals PICKARD, IVE & RANKIN, Ld., Acetyl-SallcylicAcid PICKARD, IVE & RANKIN, Ld., Acetyl-SallcylicAcid PILLISCHER, J., Thermometers	75
	PEARSON, E. T., & CO., Ld., Salleylic Acid, Foeds	82
	PERRY & HOPE, Ld., Malt Extract Preps	172
	PETRI BROS., Chemicals	159
	PICKARD. IVE & RANKIN. Ld., Acetyl-SallcylicAcid	100
	PILLISCHER, J., Thermometers	20
	POLAK & SCHWARZ, Essential Oils, Synthetic Perfumes	212
	POTTER & CLARKE, Ld., Herbs, Asthma Remedies.	1, 32
	PILLISCHER, J., Thermometers PINDAR, J. W., & CO., Pill Machinery PINDAR, J. W., & CO., Pill Machinery POLAK & SCHWARZ, Essential Oils, Synthetic Perfunes POTTER & CLARKE, Ld., Herbs, Asthua Remediles, Crude Drugs, Packed Goods PRESTON'S LIVERPOOL DISTILLERY CO. Ld., S.V.R. S.V.M.	1, 52
	S.V.R., S.V.M.	62
	QUELCH, H. C., & CO., Manicure Sets, Orange	170
	Sticks, Grease Paints, Vacuum Flasks	88
	RAJAR, Ld., Photographica	$\frac{160}{5,\ 17}$
	PRESTON'S LIVERPOOL DISTILLERY CO. Ld. S.V.R., S.V.M. PRIDEAUX'S L1. Caseln QUELOH. H. C. & CO., Manicure Sets, Orange Sticks, Grease Paints, Vacuum Flasks RAIMES, CLARK & CO., Mali Extract, Iodine Preps. RAJAR, Ld., Pbotographics RAJAR, Ld., Pbotographics (RANDALL & SON, Ld., Lavender Oil, Peppermint Oil, Resins and Resinoits, Medicinal Extracts RAWORFH, J. E., Patent Agent RED BAND CHEMICAL CO., Dracked Goods. REUTER, R. J., Druggists' Sundries, Toilet Articles RIGHGORD, G. D., Rubber Stamps RIGHGORD, G. D., Rubber Stamps RIGAUD-CHAPELLE, French Proprietaries, &c. RILEY BROS., Ld., Bath-Cahinets	62
	Oil. Resins and Resinoids. Medicinal Extracts	34
	RAWORTH, J. E., Patent Agent	$\frac{212}{162}$
	RESINOL CHEMICAL CO., Packed Goods	162
	REUTER, R. J., Drugglsts' Sundries, Toilet Articles	$\frac{25}{212}$
	RIGAUD-CHAPELLE, French Proprietaries, &c	43
	RILEY BROS., Ld., Bath-Cabinets	200
	RILEY BROS., Ld., Bath-Cabinets RIVERS, HILL & CO., Ld., Wickered Bottles ROBARTES, Ld. Toilet Specialities	35 52
	ROBBINS, JOHN G., Capsules, Perles	178
	ROBERTS, A E., Congo Lincus	$\frac{170}{140}$
	ROBBINS, JOHN G., Capsules, Perles ROBERTS, A. E., Congb Linctus ROBERTS & CO., Continental Proprietaries ROBERTS' PATENT FILLING MACHINE CO.	$\frac{102}{174}$
	ROBERTS, THOS., Whooping-Cough Remedies ROGEAT, DANTO, & CIE, Chemical Plant	108
	ROQUES, FERDINAND, Alkaloids, Cacodylates,	155
	ROBERTS: PATENT FILLING MAGHINE CO. ROBERTS, THOS., Whooping-Cough Remedies ROGLES, T. DANTO, & CIE. Chemical Plant ROQUES, FERDINAND, Alkaloids, Cacodylates ROSMARINE MNFG. CO., Toilet Preparations ROWLANDSON, W., & CO., Mixing Machinery RUDDUC & GO., Chemists' Shop-Fittings RUDDUCK & GO., Chemists' Shop-Fittings SAINT-RAPHAEL CIE, Tonic Wine SAINT-RAPHAEL CIE, Tonic Wine SAINT-RAPHAEL CIE, Tonic Wine SANTOCEN CO. (Britisia), Foods SANTAS CO., Ld., Disintectants SANTAS CO., Ld., Disintectants SANTATAS CO., Ld., Disintectants SANTATAS CO., Ld., Disintectants SCHUTZE, E. & CO., Druggists' Sundries, Purs.	108
	RUDD, F. M., Peppermint Oil	62
	SAINT-RAPHAEL CIE, Tonic Wine	95 thb
	SALTRATES CO., Bath Salts	28
	SANGERS, Druggists' Sundries, Packed Goods	205
	SANITAS CO., Ld., Disintectants	100
	SERVICE MANUFACTURING CO., Anti-lice Belts	52 nset
	SESSIONS W., Parcel Seals	212
	SHADEINE CO., Hair Dyes SHIRLEY BROS., Ld., Tin Boxes, Packed Goods	213 52
	SIM, Ld., Ampoule Files	148
	SINGLETON & COLE, Ld., Tobacco and Cigars	212
	SMITH, J. H., & CO., Fly-Catchers	211
	SANGERS, Druggists' Sundries, Packed Goods SANITAS CO., Ld., Disintectants SCHUTZE, F., & CO., Druggists' Sundries, Puis. SERNICE ALANUFACTURING CO., Anti-lice Belts SESSIONS W., Parcel Seals SHADEINE CO., Hair Dyes SHIRLEY BROS., Ld., Tin Boxes, Packed Goods SIM, Ld., Ampoule Files SINGLETON & COLE, Ld., Tobacco and Cigars SINGLETON & COLE, Ld., Tobacco and Cigars SISTER LAURAS INPANT FOOD CO., Ld., Foods. SMITH. J. H., & CO., Fly-Cakchers SMITH. J. H., & CO., Fly-Cakchers SMITH, MAURICE, & CO., Proprietaries	170
	[Continued on next page	ge.
•		

INDEX TO ADVERTISERS—continued.

SMITH, T. & H., Ld., Alkaloids, Resins & Resinoids	174	
SOCIETEIT VOOR CHEMISCHE INDUSTRIE KAT-		
WIJK, Theobromine	154	
SOFTO MANEG. CO., Shampoo and Face Powders	52	
SOLAZZI, Liquorice	78	
SOLPORT BROS., Ld., Corn Plasters, Puffs, Loofabs	58	
	207-	
SPARKS, JOHN C., Chemicals	169	
SPATULA PUBLISHING CO., Books, &c.	19	
SPENCER, ISAAC, & CO. (Aberdeen), Ld., Cod Liver Oil	24	
SQUIRE & SONS Ld., Pharmaceutical Proprietaries	119	
STANDARD HEALTH FOOD CO., Honey	170	
STANDARD OPTICAL CO., Ld., Optical Goods	22	
STANDARD TABLET & PILL CO., Ld., Pills, Tablets Co.		
STEARNS, F., & CO., Pepsines, Organotherapy Products	146	
STEEL, J. M. & CO., Naphthaline	154	
STERN SONNEBORN OIL CO., Ld., Petroleum Jelly	49	
STEVENSON, H. E., & CO., Medicated Wine, Synthetic	45	
Ottos	107	
STEVENSON, HUGH, & CO., Ld , Cardboard Boxes	014	
STEVENSON & HOWELL, Ld., Solnble and Fruit	214	
Essences, Essential Oils, Synthetic Perfumes. Insets	(9)	
STOKES, C. A., & CO., Ld., Shaving Sticks	010	
	105	
	100	
STURGE, JOHN & E., Ld., Precipitated Chalk, Citric	158	
Acid and Citrates	193	

SWALES, THOMAS, Loofahs, Corn Plasters 198
SYMPHELITE CO., Cooking Stoves, &c 109
THERMOS, Ld., Vacuum Flasks
THEW, HOOKER & GILBEY, Malted Food 84
THOMPSON & CAPPER, Ld., Pharmaceutical Machinery 105
TIMPSON JOHN, & CO, Ld., Anticeptic Powder Inset
TOLKOWSKY, S., Russian Crude Drugs, &c 152, 153
TOMLINSON, THOS., & SON, Chemists' Valuers. Col. Supp.
TOMODA & CO, Japanese Chemicals, Drugs, &c 180
TOMPKINS, J. Ld., Rubber Goods 212
TOZANA PERFUMERY CO. Toilet Articles 62
TURNER, WILFRED, & CO., Hypodermic Syringes 189
TYE, J., & SON, Capsules and Perles
TYRER, T., & CO., Ld., Bismuth Salts, Chemicals 163
VAN HORN & SAWTELL, Surgical Ligatures 213
VENESTA, Ld., Tinfoil
VERNON & CO., Ld., Surgical Dressings, Lints 213
VICHY CO., Mineral Waters 92
VISCOSE CO. Ld., Bottle Cappings 74
WAIDE, THOS., & SONS, Chemists' Printing 29
WALFORD & CO., Ld., Baking Powder
WAND MANUFACTURING CO., Capsules, Pills, Tablets 181
WARD & GOLDSTONE, Electrical Novelties 21
WARNE, W., & CO., Ld., Indiarubber Surgical Goods 197
WARRINGTON CHEMICAL & DRUG CO., Salicylic Acid 180
in international designation of the field 100

WASHINGTON CHEMICAL CO., Ld., Magnesia & Sales. 165
WATFORD MANFG. CO., Ld., Soup Cubes 89
WATSON & CO., Photographics
WEBSTER T., & CO., Ink Powder 74
WELCH & HORNER, Drugs, Chemicals, Essential Oils 174
WESTMINSTER COLLEGE OF PHARMACY 18
WHIFFEN & SONS, Ld , Emetine Salts, Quinine, &c 175
WHITE, A., & SONS, Acids, Ethers, Technical Chemicals 136
WHITE, J. & J., Bichromates
WHITE TAR CO., Naphthaline. &c
WIENER, ROBT. O., & CO., Drugs, Chemicals, Waxes 181
WILCOX, JOZEAU & CO., Continental Proprietaries
132. Text 100
WILKINSON, S. W., & CO., Tablet Machinery 101
WILLOWS, FRANCIS, BUTLER & THOMPSON, Ld.
Drug Grinders, Disinfectants, Foods
WILLSON, ASTELL J., Agencies
WOODWARD, W., Ld., Gripe Water
WOOLLEY, JAS., SONS & CO., Ld., Galenicals Foods 59
WRIGHT & CO., Oxygen Baths
WRIGHT, LAYMAN & UMNRY, Ld., Coal Tar
Specialities
WYLEYS, Ld., Drugs, Galenicals, Veterinary Medicines 177
Williams, Id., Diags, Galencals, Veterinary medicines 117
YOULDON, E., Ld., Medical Glassware 196
ZIMMERMANN & CO. (Chemicals), Ld., Chemicals 38, 186

Insets appearing in this Issue.

				De	etween rages
ALLEN & HANBURYS, Ltd.			 Packed Drugs (non-liable, Pharmaceuticals, Toilet Soaps, Jujubes, Pastilles and Toilet Preparations	•••	32—33
BRONNLEY, H., & CO., Ltd.	• • •		 "Sea Breezes" Eau de Cologne, Toilet Soaps, "Bathodomes"		128-129
BRUNNER, MOND & CO., Ltd.		•••	 "Crescent "Brand Mineral-water Bicarbonate		64—65
BUSH, W. J., & CO., Ltd			 Bush's Soluble Essence of Lemon No. 1, and other Soluble Essences ,		3233
CLAYTON & JOWETT, Ltd.	***		 M.P. Soluble Essence of Lemon and other "Gold Seal" Brand Essences	(Foreign only)
GREEFF, R. W., & CO			 "Bridge Brand "Pharmaceutical and Photographic Products		32-33
LLOYD, H. O			 Holoyd Advertising Service, "Monthly Jottings"	•••	128—129
McKESSON & ROBBINS			 Capsuled Pills, Crude Drugs, Essential Oils, "Calox "	•••	32—33
POSTLIP MILLS	•••		 Samples of Pure English Filter Papers and Analytical Report		6465
SERVICE MANUFACTURING C	o.		 Kennedy's Kill-lice Belts (Testimonials and other particulars)		128129
STEVENSON & HOWELL, Ltd.	•••		 "Dulciflor" Brand Synthetic Floral Ottos		64—65
Do. Do			 "Perfect " Soluble Essences of Lemons and Sweet Oranges, "Orana"		6465
TIMPSON, JOHN, & CO., Ltd.			 Johnson and Johnson's Antiseptic Baby Powder (facsimile of original container and trade-mark)		32_33

The next opportunity for distributing Illustrated Circulars, Price Lists, or other advertising literature as Insets will be in the Summer Issue, JULY 28, 1917.

Advertisers should, however, give this matter their attention now, and communicate with THE PUBLISHER, "THE CHEMIST AND DRUGGIST,"

42 CANNON STREET, LONDON, E.C., who will be pleased to give further particulars.



A PROFITABLE SPECIALITY

BEARING YOUR OWN NAME

UNG

FREE Window Silps FREE Showcards FREE Delivery FREE Packages FREE Sample

NAME on Label NAME on Carton P. J. Form., therefore no stamps required. Known, admitted, and approved.

Profit over 100%, and nothing to do but hand it over the counter. Makes an effective Window Show. — Quick seller. Sure repeats. —

Two Sizes, selling at $7\frac{1}{2}$ d. and 1/3.

Write for new scale of prices according to quantity ordered.



Manufacturing Chemists, THE BRIDGE STREET, DERBY.

Apply for Prices for

PILLS, CAPSULES, TABLETS, AND OTHER OWN NAMED PACKED LINES.

"I CONGRATULATE YOU: your

COLONIAL SYRUP OF FIGS

is indeed 'quite pleasant to take and very efficacious.' I have been looking round for a considerable time to find a really reliable Syrup of Figs with no objectionable flavour that we can sell under our own name."

So writes one of our very old clients from the North.



Bottles beautifully labelled, packed in smart cartons bearing chemist's name and address; show material with orders for 6 dozen.

Per **5/6** doz.

Carriage paid on orders for £1.

A popular VEGETABLE LAXATIVE

made from a Reliable Formula.

ARTHUR-H-GOX-2-GO-HID



Manufacturing Chemists

BRIGHTON ENGLAND

LUNG TONIC

Made from a most efficacious and reliable formula that secures repeat orders.



Packed in outers of 6.
Smart showcard.
Name and address on
3 dozen lots.

PRICES.

Small size 4/6 dozen. ,, 51/- gross. Large size 8/- dozen. ,, 93/- gross.

We have a good stock of bottles, and are in a position to give prompt delivery.

There are four different styles of labels to choose from.

ARTHUR-H-GOX-C-GO-LID Manufacturing Chemists

BRIGHTON ENGLAND

See also pages 1, 7, and 9.



OFFICE: 42 CANNON STREET, E.C.

SATURDAY, JANUARY 27, 1917

TO ADVERTISERS IN THIS SUPPLEMENT.

The Publisher desires to make it clear that advertisements of Businesses for Disposal and Wanted, Situations Open and Wanted, Exchange Column, &c., MUST BE PREPAID (except in the case of serial advertisers), and to ensure prompt insertion REMITTANCES MUST ACCOMPANY INSTRUCTIONS.

Advertisements for the current issue cannot be received after 4 p.m. on Thursday in each week. If it is necessary to telephone or telegraph an urgent announcement this may be done

PROVIDED the MONEY is TELEGRAPHED

at the same time and the fact made clear that the money order is to be delivered at 42 CANNON STREET, LONDON, E.C. Advertisers will assist greatly in the preparation and quick despatch of the Supplement by making careful note of these rules. Telephone: No. 3617 Central (3 lines). Telegraphic Address: "Chemicus Cannon London." (Three words counted as two.)

REST RESULTS



There is no need to guarantee the genuineness of the advertisements in 'The Chemist & Druggist Supplement.'

Everybody in the drug-trade knows that only bonafide paid-for advertisements are inserted. The 'Chemist & Druggist Supplement' knows no deadheads, for it gives

TO PAY FOR. PAYS THE PURLICITY

CHEMISTS' TRANSFERS.

Messrs. ORRIDGE & CO., 56 Ludgate Hill, E.C.

May be consulted at their Offices on matters of SALE, PURCHASE, and VALUATION.

1.—LONDON (Northern Suburb).—Situate in good position in the main shopping thoroughfare, well-established Business; increasing income; returns between £1,000 and £1,100; profits exceed the usual rate of middle-class business; well-fitted shop and comfortable residence, with garden; price £600.

2.—LONDON, N.W.—Family and Dispensing Business; returus, under management, between £8 and £10 per week; the locality is developing, and an opening presents to largely extend the turnover; comfortable residence; vendor's own property; price £200:

3.—LONDON, W. (Good-class District).—Modern Pharmacy, well situated, but much let down, and for disposal through death; returns about £1.000; a man with energy would soon make a big business; about the valuation of stock and fixtures—would be

business; about the valuation of stock and fixtures would be accepted.

4.—TOTTENHAM.—Ready money Business; returning under manager £1,400 to £1,500, at good-prices; books kept by accountant, and stock taken annually; about £375 required to purchase, £200 on entry and balance by instalments.

5.—RICHMOND (Surrey), Near.—Very old-established Business; held by vendor many years, now retiring; returns about £870; profits above the average; first reasonable offer will be accepted.

6.—LONDON, S.W.—Middle-class Business, situate in the main street; returns about £1,300; net profit £400; very good house, part sublet; fair price only required.

7.—GREAT NORTHERN MAIN LINE (Few Miles Out).—Price about £650 or valuation of stock and fixtures and small premium for lease and goodwill; neglected business, returning under manage-

ment about £1,250; gross profit £508; books audited by accountant and stock taken annually.

8.—FASHIONABLE Seaside Town.—First-class Retail and Dispensing Business, situate in large, good-class town; position, unique; returns about £900; capital opening for Chemist well up in Optics; valuation terms; death cause of sale.

9.—BIRMINGHAM.—Retail and Dispensing Business, established many years; returns under management about £600% formerly £1,000; there is also an appointment giving an income of £80 yearly; satisfactory reason for disposal; valuation terms. entertained.

entertained.

10.—SURREY (Residential Locality).—Select, good-class Business, admitting of extension; returns about £1,000 at good prices; well-appointed shop and good house; price about £700.

11.—KENT (Suburban).—Well-established Business, Retail and Dispensing; returns £900; net profit about £250; full investigation is invited; price £275 on entry and £175 by instalments.

12.—BRISTOL CHANNEL (Health Resort).—Neglected Business returns about £500; excellent opening for pushing man; terminal to the statement of the statement

14.—HEALTH RESORT.—Retail and Dispensing, with some Optical; returns over £1,000, at fair prices; price £600 or £100 and valuation of stock and fixtures.

ALUATIONS

20. & Co. desire to emphasize the necessity of a Periodical Statement of Account, by which means alone Profit, the value of Business, &c., can be determined. Involving as this does the labour of Stocktaking and Valuation, it is often omitted, and

eventually becomes the cause of confusion and loss.

Messrs. O. & Co. are prepared to undertake these essential duties, and will make Special Terms for such services. ORRIDGE & CO., 56 LUDGATE HILL, LONDON, E.C.

PARSON C. BAKER

(Pharmaceutical Chemist).

Trade Valuer & Transfer Agent.

Recommended by The British Drug Houses, Ltd.; Messrs. Meggeson & Co.; Barclay & Sons, Ltd.

Valuer to the Association of Manufacturing Chemists.

1 Mountfield Road, CHURCH END, FINCHLEY, N. Tel. No.: Finchley 812.

THOS. TOMLINSON & SON

CHEMISTS' VALUERS, TRANSFER AGENTS, AND EXPERT STOCKTAKE.S, 45a MARKET STREET, MANCHESTER. ESTABLISHED OVER HALF A CENTURY. Telegraphic Address: "Tomtom."

BATTAM & HEYWOOD

CHEMISTS' VALUERS, TRANSFER AGENTS, AND EXPERT STOCKTAKERS. Balance Sheets Prepared. Books Audited. 3 DAVIES STREET, BERKELEY SQUARE, W.

Telephone: GERRARD 2169.

VALUERS & TRANSFER AGENTS.

35 Jewry Street, Fenchurch Street, City. Telephone: 1809 CENTRAL.

NO CHARGE TO PURCHASERS.

1.—CORNISH RIVIERA.—Best-class Dispensing and Family Retail Business in same hands many years; returns last year £1,025, in normal times nearer £1,200; net profit £350; commanding Pharmacy in very best position; good house; price £850. 2.—HOME COUNTY.—Good-class Country Retail Business, easily worked; returning about £900 at good profits; pleasant market town; exceptionally good house; moderate rent; well fitted and fully stocked; price £650. 3.—MIDLANDS (Death Vacancy).—Light Family Retail and Agricultural, in pleasant market town; easy honrs; returns £900; net profit £300; good opening for Photo and Optics; one other Chemist; price £425, or first reasonable offer.
4.—SOMERSET.—Light Retail Business, in good market town; owner retiring through ill-health; returns £500; plenty of scope; net profit £200; price simply valuation, about £300.
5.—SUSSEX GOAST.—Well-established Light Retail, Dispensing, and Prescribing Business in rising seaside resort; returns about £650; good profits; splendid house; attractive Pharmacy; price

5.—SUSSEX COAST.—Well-established Light Retail, Dispensing, and Prescribing Business in rising seaside resort; returns about £650; good profits; splendid house; attractive Pharmacy; price only £250; worth attention.
6.—LONDON SUBURB, S.E.—Middle-class Cash suburban Retail, not on Panel; returns £900, increasing; net profit £250, practically unopposed; well fitted and stocked; books properly kept; price £400.
7.—LONDON, N.W.—Good middle-class Retail; no Panel or Poisons sold; returns £600; net profit about half; low rent; lock-up shop, double-front and handsomely fitted; price £275; tatal allowed. trial allowed.

* STOCKTAKINGS.

Appointments for stocktakings and valuations should be made early. Full particulars and terms sent on application.

Why you should have stock taken is very clearly defined on page 90 of the C. & D. Diary, 1917.

Have you read it?

Me desire particularly to draw the attention of Colonial and Foreign Subscribers to the fact that in cases where they require partners, agents or assistants, or wish to sell their businesses, an advertisement in this Supplement, placed In every copy of "The Chemist and Druggist," should be the readiest means of helping them to attain their object. The tariff for such announcements is given under the appropriate headings in the Supplement. Instructions and remittances can be sent to us direct or through the advertisers' correspondents in this country.

BUSINESSES FOR DISPOSAL.

3s. 6d. for 50 words or less; 6d. for every 10 words or less beyond, prepaid.

The Advertiser may, if preferred, have replied addressed to this Office, and forwarded on payment of an additional charge of 6d.

Price-lists, trade circulars, samples, and printed matter can in no case be forwarded, the Box numbers being intended exclusively for specific answers to particular advertisements. The Publisher reserves the right to open and refuse to forward any communications received which he may consider contrary to this rule.

KENT COAST.—Shop, in splendid position, High Street; well fitted in mahagany; fair stock; wants qualified management to do excellent trade; about £170 wanted. 197/11, Office of this

CHEMIST Business for Sale.—The established Chemist and Drug-gist, etc., Business carried on by the late Mr. G. L. Cruick-shank, at Rothie Norman, Aberdeenshire. For particulars apply to Mrs. Cruickshank, The Pharmacy, Rothie Norman.

FOR SALE.—Small Business in a thickly-populated district of large Midland town; no near opposition; fine opportunity for energetic man; will accept valuation of Stock and Fixtures. 101/23, Office of this Paper.

N EAR London.—Deutal Chemist, now a medical student, wishes to dispose of his lucrative Chemist's Business and Dental Practice; turnover now £1,400; splendid profts; rent £50, lease; price for whole about £700; every investigation allowed to bonafide purchasers; sale of Chemist's Business only would be entertained on certain conditions. Apply, 116/35, Office of this Paper.

£50 FOR Immediate Occupation.—Profitable suburban Business; working-class; about £8 weekly turnover; scope for large increase; Lock-up Shop at low inclusive rent, which includes modern fixtures and fittings; for quick sale above low price or very near offer accepted; personal interview for any further particulars. Apply, 117/20, Office of this Paper.

BUSINESSES WANTED.

SMALL Business wanted; town or country. Please give full particulars, 118/7, Office of this Paper.

WANTED, good-class Business showing a fair net profit, with good living accommodation (or Lock-up Shop); fair initial deposit, part to remain; or Managership at reasonable salary with view to early succession. Please send full particulars (in confidence), in first letter, to "Mutual" (117/16), Office of this Paper Paper.

PARTNERSHIPS.

SSISTANT wanted with view to Partnership and ultimate A SSISTANT wanted with view to Farnership and intimate at end of war on exceptionally easy terms; capital at command not less than £1,000; a chance that seldom occurs to acquire a sound business. Give full particulars (in strict confidence). Apply, 118/10, Office of this Paper.

AGENCIES.

Price-lists, trade circulars, samples, and printed matter can in an case be forwarded, the Box numbers being intended exclusively for specific answers to particular advertisements. The Publisher reserves the right to open and refuse to forward any communications received which he may consider contrary to this rule.

DUBLIN and the South and West of Ireland.—An experienced and Druggists, is desirous of Representing a really good firm on commission or part salary and commission; highest references. Apply, "P. L." (111/2), Office of this Paper.

REPRESENTATIVE wanted for the sale of Salol, Salicylates, Caustic Soda, Soda Ash, Formaldchyde, Bichromates, and other Drugs, Chemicals, and Oils; will allow commission and cable expenses. B. Brown & Bro., Office and Warehouse, 237 Water Stands NY USA expenses. B. Brown Street, N.Y., U.S.A.

FOR SALE.

A TROP. Sulph., 588.; Quinine Hydroch., 1½ oz.; Sulphonal, 6 oz., ditto, 5-gr. Tablets, 4 oz.; Cantharides, crushed, ½ lb.; Sp. Ammon. Foctid., ½ lb.; Dionine, 588.; Benzonaphthol, 2 oz. Thiocol, 5iij; Chloralamid, 1 oz.; Salicin, 2 oz. What offers? Bull, Chemist, Plymouth.

MAXIM'S Pipe of Peace Inhalers, ½ dozen or 1 dozen; no reasonable offer refused; trade only. Timothy White Co., Ltd., Portsmouth.

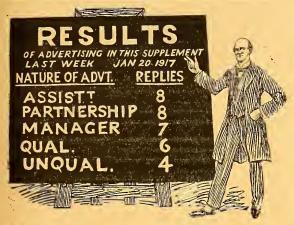
100 Phenacetin Tablets, 4 x 100 Phenacetin Co. Tablets, 24 x 25 Phenacetin Tablets, 3 x 100 Phenacetin Tabloids—all grs. 5, and 6s. 100. Also 3 x 100 Sulphonal, gr. 5, 2s. 6d. each; 3 x 100 Sulphonal, gr. 5, 2s. 6d. Gibson, Chemist, Brigg.

SITUATIONS OPEN.

3s. 6d. for 50 words or less; 6d. for every 10 words or less beyond, prepaid.

The Advertiser may, if preferred, have replimed addressed to this Office, and forwarded on payment of an additional charge of 6d.

Price-lists, trade circulars, samples, and printed matter can is no case be forwarded, the Box numbers being intended exclusively for specific answers to particular advertisements. The Publisher reserves the right to open and refuse to forward any communications received which he may consider contrary to this rule.



This Blackboard demonstrates that Advertisers using these columns get a ready response to their announcements. The figures only refer to some of the letters RECEIVED AT OUR OFFICE on behalf of Advertisers who use 6 number or nom de plume.

RETAIL.

A LDERSHOT.—Qualified Assistant required (male or female), used to first-class business, for Dispensing duties only; hours 8 to 6; no Sunday duty; permanency; good prospects. State age, commencing salary required, and particulars of previous engagement, to Junior Army & Navy Stores, Ltd., Union Street, Aldershot.

BATH.—Immediately, an Assistant experienced in good-class Dispensing business; lady or gentleman, but if latter incligible for military service. State particulars as to age, experience, and salary in first letter, to Hawes, Chemist, St. James's Square, Bath.

BIRMINGHAM.—Wanted, unqualified Assistant or Junior for N.H.I. Dispensing and Counter. Apply, with full particulars of experience, salary required, etc., Price, Blackheath, Birmingham.

BLACKPOOL.—Unqualified Junior Assistant (exempt from military service) in high-class Dispensing business, or young lady with Hall certificate. Send references, photo, and state salary required, to Richardson & Co., Central Beach, Blackpool.

CAMBRIDGE.—Wanted, lady or gentleman (if latter, must be ineligible for military service), as Qualified Assistant in good Dispensing business; in- or out-door. Apply, G. Beall & Son, Pharmacists, 25 Sidney Street, Cambridge.

CARLIFF.—Competent Assistant, accustomed to good-class business; short hours; no Sunday duty; suitable man requiring permanency will find this desirable. Also Junior Assistant who is a reliable Dispenser. Hicks & Co., Cardiff.

COLWYN BAY.—Death vacancy.—Wanted, qualified Manager with good-class Dispensing and Retail experience; must be of good address; good salary to capable reliable man. State full particulars to E. A. Neill, Chemist, Colwyn Bay, North Wales.

CROYDON.—Qualified Assistant for Dispensing and Light Retail business; good salary to smart man; permanency. State age, experience, etc., to W. E. Matthews, Ltd., 40 George Street, Croydon.

CROYDON.—Assistant (capable) for Counter and Dispensing.
Apply, stating experience, etc., "Chemist," 77 High Street,
Croydon.

EALING, W.—Assistant wanted (lady or gentleman) for good Dispensing business; Bookkeeping and Counter or Dispensing. Apply, stating age, experience, and salary required, to W. A. Weston, 8 Sandringham Parade, Ealing, W.

H UDDERSFIELD.—Assistant wanted (male or female); accustomed to first-class business; reliable Dispenser and competent to assist at Counter; outdoors; liberal salary. Stato age, experience, and enclose photo, Ralph Cuthbert, Ltd., Chemists, Huddersfield.

LANCASHIRE.—An energetic Assistant for Rochdale braich (under qualified Manager) for middle of February; moderate hours; no Sunday duty. State salary required, particulars of experience etc., to Waller and Riley, Ltd., Chemists, Bolton.

LANCASHIRE.—Spendid opening for smart young married man, qualified, ineligible for military service, as Manager; business situate in a pleasant suburb of large manufacturing town; interest in the profits offered. "Lanes" (116/400), Office of this Paper.

EAMINGTON SPA.—Experienced Assistant, qualified or unqualified, for Dispensing Business; reasonable hours; must be exempt. Give usual particulars and state salary to W. L. Nundy, 35 Bath Street, Leamington Spa.

I ONDON (Suburb).—Assistant; ineligible; Whole or Part time; outdoors; good-class Retail, Dispensing, and Photographic; state usual particulars, salary expected, and when disengaged. Apply, J. P. Kendall, 20 Park Parade, Palmers Green, N.

LONDON District.—Unqualified Assistant, age about 46, required for Light Retail and Dispensing business; permanency to a suitable man. "G." (116/401), Office of this Paper.

L ONDON, N.E.—Qualified Manager (under principal) in brisk business, with three branches; over military age or ineligible for Army; please give full particulars, stating age, experience, and salary required (letter only), to "Chemist," 300 Amhurst Road, Hackney, N.E.

TO SAVE TROUBLE.

MANY correspondents answering advertisements in this Supplement enclose remittances to cover the cost of forwarding their letters to advertisers who prefer to be addressed c/o this Office. The Publisher desires to make it clear that this is quite superfluous, and perhaps this reminder will obviate the necessity of the frequent return by him of such remittances.

ANSWER IN TERMS OF THE ADVERTISEMENT AND

REMEMBER you are one of possibly hundreds applying for the same position. Put your case before the advertiser so that he may be able to form a MENTAL PICTURE of your suitableness.

BE BRIEF BUT CLEAR.—Millions of applications are consigned to the waste-paper basket UNCONSIDERED, because the reader cannot form this picture from the inadequacy of the materials set before him.

RETURNING PHOTOS, Etc.

Advertisers in this Section who receive portraits and copies of testimonials from applicants with a stamped addressed envelope for reply are reminded that the undue retention of these often means a hard-ship to the sender. All personal documents should be returned as promptly as possible after perusal.

ONDON, N.W.—Wanted, a capable Assistant, gentleman (incligible) or lady, for high-class Dispensing and Retail business. Kindly state full particulars, experience, salary required, etc., if possible personal interview; also a vacancy for a well-educated young gentleman or lady as pupil or apprentice. Apply, W. J. Dalby, 6 Canfield Gardens, Hampstead, N.W.

Light Retail business. Apply, with full particulars, salary required, etc., to 198/59, Office of this Paper.

ONDON, S.W.—Qualified Manager wanted immediately: energetic, capable, good Salesman, and of good appearance; permanency; good prospects. Apply, with particulars, salary required, etc., to W. Bennison, Pharanaceutical Chemist, 155 King's Road, Chelsea, S.W.

DONDON, S.W.—Wented at once, an Assistant who has had good Dispensing experience. Apply to A. J. Phillips, 156 Cromwell Road, South Kensington, S.W.

LONDON, S.W.—Assistant (male or female) for Light Retail; easy hours; would suit elderly man; one able to take charge. Apply, stating salary required, etc., to 116/29, Office of this gaper.

MANCHESTER.—An unqualified Assistant required with goodclass business experience; no Insurance work or Sunday duty, State age, experience in full, and salary expected, to 197/9, Office of this Paper.

MANCHESTER and Salford Hospital for Skin Diseases, Quay Street, Manchester.—Dispenser wanted for the duration of the war; ineligible; Minor qualification; salary £140 and war bonus. Applications, with eopies of testimonials, to be sent to the Secretary.

MANCHESTER District.—Qualified Pharmaeist to Manager good class branch. Reply, giving usual particulars, 117/22, Office of this Paper.

NORTH MIDLANDS.—Qualified Manager required for progressive middle-class business; little N.H.I.; must be ineligible; excellent scope, with good remnneration for man having ability and energy. Apply, with full particulars of experience, salary, etc., to 119/31, Office of this Paper.

Rughy.—Junior (lady or gentleman) at once, for good-class Dispensing and Retail, Gray, Pharmacentical Chemist, Rughy.

ST. ALBANS.—A lady Assistant wanted (outdoors), good Dispenser, for Light Retail and Dispensing business. Apply, Shields & Warren, St. Albans.

SHEERNESS.—Assistant (Junior) wanted at once; ineligible for military service: outdoors; no Sunday duty, and weekly half-holiday. Hudson, Pharmacist, Sheerness.

SOUTH OF ENGLAND.—Assistant required; free removal; permanency, with good salary. Timothy White Co., Ltd., Chemists, Portsmouth.

SOUTH WALES.—Smart qualified Manager required for business situate not far from Cardiff; must be a capable Dispenser and good Connterman; good salary and interest in the profits offered to snitable man. "S. W." (116/402), Office of this Paper.

TREHARRIS.—Wanted, Assistant, male (ineligible) or female, married or single, qualified or unqualified, for country business and N.H.I. work; open to consider part interest or sale if preferred. Give full particulars in first letter to T. Thomas, Chemist, Treharris.

WEYMOUTH.—Wanted, Assistant, qualified or unqualified for good-class Dispensing business; must be ineligible for military service. Apply, stating salary required (ontdoors) and usual particulars, photo, to Shelley Richards, Pharmacist, Weymonth.

WORTHING.—Assistant wanted: unqualified; good-class business; seaside town. Send particulars, with references, to W. Aston, Pharmacentical Chemist, 6 Burlington Terrace, Worthing.

A JUNIOR Assistant (ineligible for service) or young lady for Counter and Photographic Department: hours 9 a.m. till 8 p.m., Saturdays 9 p.m., Thinsdays 1 o'doek. State salary (outdoors) and experience. Apply, Mesers. Prosser Roberts Co., Pharmaceutical Chemists, 13 Church Street, Camberwell, London, S.E.

A PART-TIME qualified Assistant; N.W. district. Please state in reply times vacant and remnneration required. 119/19, Office of this Paper.

A SSISTANT wanted for good-class Retail and Dispensing business. Apply, giving references and full particulars as to calary required (outdoors), etc., to "Fortuna" (116/13), Office of this Paper.

A SSISTANT for Dispensing; must have had good experience; heasy hours; ontdoors; March. Full particulars as to age, paper, and salary required. Apply. 116 10, Office of this Paper.

 $A^{
m SSISTANT}$ or Dispenser for first-class business; salary according to experience; reasonable hours; live in or ont. Particulars to Knight, Pharmacist, Purley.

A SSISTANT wanted, lady or gentleman, for good-class business; outdoors. Please state usual particulars of experience, salary required, etc., Davies, Pharmacist, 567 Finchley Road, London, N.W.

A SSASTAND; young; experienced, and incligible; ontdoors; good salary. Apply, Vincent & Co., 94 High Street, Clapham, S.W.

CHEMIST in North (seaside village) requires lady to assist in Dispensing and at Counter. State experience, salary required, etc., 195/40, Office of this Paper.

COMPETENT Assistant (lady or gentleman) for good-class Retail and N.H.I. Dispensing wanted at once. Apply, with full particulars, to Knight & Crofts. Hinckley, Leicester.

EVENINGS.—Wednesdays and Thursdays from 6 to 9 and afternate Snndays 7 to 9; M.E. London, near City; qualified; mostly for N.H.I.; not liable for military service. State terms, present occupation, etc., to "G. S. P." (118/16), Office of this Paper.

JUNIOR Assistant (ontdoors); ineligible; Light Retail and Dispensing. State full particulars and photo, if possible. Apply, "Chemieus" (116/34), Office of this Paper.

ADY Dispenser and Bookkeeper required; must be neat writer, quick, and accurate Dispenser, and capable of keeping Books; outdoors; reasonable hours; state age, height, salary required, and when disengaged. Apply, by letter in first place, Bailey, Pharmacist, 61 Old Dover Road, Blackheath, S.E.

ADY Assistant; Dispensing knowledge and Counter experience. State salary required, Bray's, Ltd., Chemists, 1 Milton Market, Eastney, Portsmouth.

LADY Assistant (at once) for Light Retail Mixed Country brauch; little N.H.I. Dispensing; sole charge; easy and comfortable situation; short honrs; outdoors; no Sunday dnty; good salary to suitable person. Apply, R. Barker, The Pharmacy, The Cross, Buckley via Chester.

LADY Assistant wanted with experience in Retail. Please give particulars as to experience, references, age, salary required, and when disengaged, in first letter, or apply personally to Bishop & Vincent, 460 Holloway Road, London, N.

LADY, 20 to 28 years, must be well educated, served regular apprenticeship preferred, tall, healthy, well up in Dispensing, Counter work, and Window Dressing, for good-class Dispensing business near Newcastle-on-Tyne. Give full particulars, enclosing photograph (to be returned), in first letter, to 119/21, Office of this Paper.

LOCUM wanted early February for four weeks. Apply immediately, stating qualifications and terms, to Secretary, Coventry and Warwickshire Hospital, Coventry.

MANAGER; qualified; over 45 or ineligible; must be a good organiser and accustomed to good-class business. Apply, giving full particulars of experience and salary required, to Mr. Reid, 2 & 3 Queen Street, Exeter.

MANAGER; ineligible; qualified. Apply to Idris Phillips, Chemist, Great Russell Street.

MESSRS. TIMOTHY WHITE CO., LTD., Chemists, Portsmonth, require a capable Pharmacist (male or female); easy hours; good and progressive salary, with excellent prospects; free removal.

OUTER Suburb.—Jnnior Assistant (indoors) wanted; lady or gentleman; high-class trade; easy honrs; extra holidays arranged; charming neighbourhood; comfortable home. In applying, state age, height, and experience, and enclose photo, which shall be returned immediately, Hntchin, The Pharmacy, Longhton, Essay.

PART-TIME Assistant wanted; ineligible; Retail Dispensing and Photographic business. Enness, Pharmacist, 91 High Street, Wandsworth, S.W.

QUALIFIED lady or gentleman as Manager for old-established business in manufacturing town, South Yorks. State terms, references, etc., first letter. Apply "E. B. P." (116/25), Office of this Paper.

QUALIFIED Assistant (ineligible for Army), used to N.H.I. Dispensing. State full particulars, with references, to Audsley, Horbury, Wakefield.

QUALIFIED Chemist for Dispensing business required at onee; must be ineligible for military service. Please give full particulars of experience and salary required, to Lewis Wing, Ltd., 19 Walliscote Road, Weston-super-Mare.

QUALIFIED Assistant, lady or gentleman (if the latter, must be ineligible for military service), for good-class Dispensing and Retail business. To avoid delay, state full particulars as to experience, age, and salary (outdoors), in first letter. Apply, Haward, 15 High Street, Littlehampton.

QUALIFIED lady or gentleman to Manage good-class Pharmaey, market fown, Hampshire; also unqualified Assistant; short hours; no Sunday duty. Please state age, experience, and salary required, 118/23, Office of this Paper.

R. H. TOOTILL. Pharmaceutical Chemist, Altrineham, requires an unqualified Assistant of either sex; must be experienced in both Dispensing and Counter. State full particulars and selary required.

REQUIRED, Assistant (male or female), with knowledge of Drugs; one accustomed to putting up orders, experienced in Wet and Dry Counters preferred; short hours of work. Write, stating full particulars of past experience and salary required, "L. J.," 1445, Sells' Advertising Offices, Fleet Street, E.C.

URGICAL Sundries.—Lady required in Surgical Department of large West End Store; candidates must thoroughly understand the business; good salary to competent person. Apply, with full particulars of qualifications and experience, 195/9, Office of this Paper.

UNQUALIFIED Assistant; ineligible or above military age; must have had good Photographic experience; progressive berth; Midland city; permanency. "Photo" (116/4), Office of this Paper.

NQUALIFIED Assistant required in an Agricultural and Dispensing business in the Eastern Counties. Apply, with full particulars of age, experience, and salary required, to 118/5. Office of this Paper.

WANTED, lady Assistant with Minor qualifications for a City Stores; short hours; no Sunday duty. Apply, stating salary required and other particulars, to the Staff Superintendent, C.S.S.A., Ltd., 136 Queen Victoria Street, E.C.

WANTED, reliable Assistant; non-eligible; Provinces; Agricultural; permanency. Full particulars, salary, etc., 105/1, Office of this Paper.

WANTED at oue (indoors), Junior Assistant; unqualified, Apply, with full particulars, Heaton, Chemist, Ripley, Derby.

WANTED, qualified or unqualified Assistant; able to completely Manage Pharmacy; position permanent it satisfactory. State age, salary required, photo (if possible), and recent references, Mrs. Bowling, 44 Dinioud Street. Pembroke Dock, South Wales.

WANTED immediately, qualified or unqualified Assistant; used to good-class Store trade; honest, willing, and obliging. Apply, giving full particulars as to salary, reterences, etc., to Morton's, Ltd., 199 Portobello Road, Notting Hill, W.

WANTED, unqualified Assistant; outdoors; iueligible; 20-30 years of age preferred. Apply, with photo, to Summers, Pharmacist, 436 High Road, Streatham, S.W.

Wanted, registered Chemist; elderly; indoors; easy berth; Cornwall. Apply, 117/4, Office of this Paper.

Wanted at ouce, qualified Dispenser; ineligible; healthy and energetic. State salary, give references, and send photo, Freshneys, 5 Victoria Street, Grimsby.

WANTED, qualified day Wednesday; required, particulars. London, W.

Manager; permaneney; outdoors; half-Sundays free; apprentice kept. Salary Apply, Walsham, Pharmacist, Hanwell,

558. WEEKLY (Outdoors).—Capable Assistant; unqualified; must be ineligible; medium-class Cash business; S.W. London suburb; reasonable hours and comfortable berth to competent man; full day off weekly; good references essential. Please state age, height, and full particulars of experience (in confidence), to 119/15, Office of this Paper.

WHOLESALE.

EXPERIENCED Pill maker and Tablet maker wanted at once; good pay to reliable man. Write, stating experience, etc., to "London" (198/68), Office of this Paper.

DESPATCH Clerks and Counter Assistants required by leading London house; ineligible. Apply, giving full particulars, 197/27, Office of this Paper.

ABORATORY.—Wanted, lady Pharmaeist, eapable of coing Analytical work, for Provincial Wholesale Manufacturing house. Please reply, with full particulars age, qualifications, salary expected, to 192/51, Office of this Paper.

MANAGER wanted for Surgical Dressings 'concern, with thorough knowledge of the manufacture of Gauze, Lints, Wool, and Bandages; permauent; good position and prospects. Address, 196/15, Office of this Paper.

TRAVELLER wanted for country for Sundries and Packed Goods; must have good knowledge of trade; incligible; connection all ready exists. Apply, by letter, to "F. E. W.," 1 Chelsea Gardens, London, S.W., giving full detail as to experience and salary required

WANTED at once, Representative; ineligible; with good experience and ability in selling Perfumes and Toilet Preparation; new line with very easy sale. Address, stating experience and salary required, 116/18), Office of this Paper.

WANTED, by Provincial Drug house, Invoice Clerks, Wet- and Dry-room Assistants, Bottle Stockkeeper; all ineligible. Please give full particulars in first letter to "Sennæ" (197/16), Office of this Paper.

WANTED, Manufacturing Chemist with sound commercial experience as General Manager of established business; recent experiences in the manufacture of Toilet Preparations essential, including the purchasing and testing of raw materials; good Organiser; financial and productive, and thoroughly experienced in advertising. Send full particulars of experience and salary, to "Statimel" (118/13), Office of this Paper.

WET Counter hand required by London Wholesale Druggists, Apply, with particulars as to salary required, etc., 197/4, Office of this Paper.

WET-ROOM Assistant (incligible for military service) required by a Provincial Wholesale house. Write, giving full particulars, to John Ismay & Sous, Mauufaetnring Chemists, Newcastle-on-Tyne.

WORKS Chemist (experieuced) wanted by firm of Engineers and Manufacturing Chemists; must be over military age and not at present occupied on Government work. Write full particulars to 1,398, Sells' Advertising Offices, Fleet Street, London.

SITUATIONS WANTED.

for 12 words or less; 6d. for every 10 words or less beyond, prepaid.

The Advertiser may, if preferred, have replied addressed to this Office, and forwarded on payment of an additional charge of 6d.

[HOME.] RETAIL.

AS Manager; qualified; elderly, active man: good Counterman, Prescriber, and references; no objection to N.H.I.; London, suburbs, or Home Counties only. Address, 116/31, Office of this Paper.

 ${
m A}^{
m SSISTANT,~as~Locum}$; 23; qualified. Please state hours and salary. Apply, 116/7, Office of this Paper.

A SSISTANT (unqualified); ineligible, 22, tall, desires berth in London or country preferred; 6 years' experience. State usual particulars and salary, "Cymro" (115/34), Office of this Paper.

 $\mathbf{A}^{\rm SSISTANT;~28:~well~up}$ in Retail, Dispensing, and Photographie; height 5 ft. $7\frac{1}{2}$ in. "Aspirin," 9 Stockleigh Road, St. Leonards-on-Sea.

A SSISTANT or Manager of Drug Stores; uuqualified; 46; London or suburbs only. Apply, "E. H." (116/38), Office of this Paper.

A SSISTANT; unqualified; all-round experience; rossonable hours and permanency required. "Verox" (117/5), Office of this Paper.

A SSISTANT; 30; unqualified; married; 16 years' excellent all-round experience; Dispensing, Counter, Photographic; good references; abstainer; permanency; Midlands or West preferred. 118/14, Office of this Paper.

DISPENSER Bookkeeper, Surgery Attendant: ineligible; excellent testimonial from last employer. 116/11, Office of this Paper.

ENERGETIC Locum; 49; unregistered; good references; Counterman and Prescriber; abstainer. "Statim," 19 Chapel Street, Uxbridge.

ENERGETIC elderly man (qualified) requires post as Manager immediately; experienced in all departments; Town (City and West End) and country. Full details in first letter to "Pharmacist," 7 Avenue Road, Wallington, Surrey.

EXPERIENCED Assistant; disengaged; exempt; country preferred. A. W. Farquhar, Railway Hotel, Arklow.

IMMEDIATE, Assistant or Manager; young; totally exempt; smart, active, reliable; all-round experience; waqusbfied; good credentials. "Locurn," "The Nest," Heston Road, Hounslow, Middlsex.

MMEDIATELY, qualified Dispenser for few days. "G.," 14 Claremont Road, Cricklewood.

LADY Dispenser, experienced, requires post; London; Junior Hospital preferred. North, 36 Cambridge Street, S.W.

LADY Dispenser desires post; Chemist; 4 years' experience; Birmingham district preferred. Address, 115/39, Office of this Paper.

LADY Dispenser (Hall) and Chauffeur; experienced; knowledge of running repairs, desires post as either or both. Robinson, 19 Moutana Road, Balham, S.W.

LADY Dispenser-Secretary, 34 (C.M.B.), 5 years' thorough experience in the general routine of medical work, desires post with Doctor, Institution, or high-class Chemist in London; highly recommended. Apply, 117/25, Office of this Paper.

LADY Dispenser (Hall), experienced, excellent testimonials, desires post; Doctor's or Iustitution; near London preferred, not essential. 117/2, Office of this Paper.

LADY Dispenser, experienced (Apothecaries' Hall), desires post with Doctor; now disengaged. 116/39, Office of this Paper.

LADY (Minor) desires post first-class Chemist. 118/29, Office of this Paper.

LADY (qualified) wants post with Doetor; Putncy district; experienced. "M. B." (117/35), Office of this Paper.

LADY Dispenser with some experience desires post Doctor's surgery in or near London. Address, "Kismet" (117/18), Office of this Paper.

LOCUM Tenens; disengaged; experienced; ineligible. "L. T.," Eton House, 1 Eton Road, Newport, Mon.

M.P.S.—PHARMACY Medallist, C 5, active, healthy, ment of Dispensing business, with N.H.I. Full particulars to Graydon, Woolhope Road, Worcester,

MANAGER, or Managing Assistant; age 45; unqualified; London or suburbs. 115/38, Office of this Paper.

MANAGER; qualified; ineligible; experience City and West End. "W. W.," 22 Graham Street, London, N.

MANAGER or Locum; qualified; London or Provinces; disengaged; satisfactory references. State terms, "Eosin," 53 Dorothy Road, Clapham Junction, S.W.

MANAGER (30), single, ineligible, 17 years' experience, reof this Paper. Apply, 117/13, Office MANAGER or Assistant under principal; qualified; experipaper. active and trustworthy. 117/12, Office of this

MANAGER; qualified; over military age; excellent references; good experience; if found mutually satisfactory could, if desired, make deposit re succession. "Reliable" (117/160), Office of this Paper.

MANAGER; qualified; age 45; every kind of experience; business builder; time saver. 118/27, Office of this Paper.

MANAGERSHIP required; qualified; age 43; disengaged beginning March; London district; outdoors; good all-round Private and Store experience; abstainer; succession on easy terms entertained. "M." (116/1), Office of this Paper.

Part-time.—Relief, 3 or 4 half-days weekly. "S.," 128 Portsdown Road, Maida Vale.

PHARMACEUTICAL Chemist, past military age, Wholesale, Laboratory, and Retail experience, seeks engagement (outdoors) in London. "Major," 3 East Dulwich Grove, S.E.

PHARMACIST (qualified), over military age, active, seeks experience; London, preferred. 115/35, Office of this Paper.

 $\mathbf{P}^{\mathrm{HARMACIST}}$ (over military age), thoroughly experienced in good-class Private and Store trade, expert knowledge of Photography, desires post as Manager. State salary offered to "Velox" (117/27), Office of this Paper.

QUALIFIED Manager; permanency or Locum; experienced. Davies, Ty Cwrdd, Llwynhendy, Llanelly.

 $Q^{\rm UALIFIED}$ woman, West End and Institutional experience, wishes post in London; reasonable hours. Apply, 116/24, Office of this Paper.

UNQUALIFIED; exempt; disengaged; 20 years' experience Counter and Dispensing; London or suburbs only. Apply, "J. B.," 41 Spratt Hall Road, Wanstead, London, E.

 $U^{NQUALIFIED}$ (23), Dispensing and Counter, desires change. State salary and hours, 117/9, Office of this Paper.

UNQUALIFIED Assistant, holding a discharge from Army, desires situation; age 23; height 5 ft. 10 in.; 7 years' experience; London W. experience. State salary offered, forward full particulars. Apply, 117/15, Office of this Paper.

UNQUALIFIED Assistant or Branch Manager, married, age 47, desires change; Yorkshire district preferred; present position (Manager) 21 years; disengaged February. 118/22, Office of this Paper.

UNQUALIFIED; tactful Salesman; Prescriber; Manage or Assist; recommended; London preferred. "Reliable" (117/34), Office of this Paper.

UNQUALIFIED (25) requires situation; Dispensing and Counter; easy distance Ealing; C 3; disengaged. H. Webb, Green Avenue, Ealing. W.

WHOLESALE.

Price-lists, trade circulars, samples, and printed matter can in accesse be forwarded, the Box numbers being intended exclusively for specific answers to particular advertisements. The Publisher reserves the right to open and refuse to forward any communications received which he may consider contrary to this rule.

CENTLEMAN (27), married, ineligible, seeks position as. Traveller or any other capacity where energy and adaptability would be appreciated. "Primroso ? (119/26), Office of this Paper.

TNDIA-RUBBER Works Publicity man, age 44½, desires change: good experience with Chemists, Wholesalers, Shippers, Exhibitions; would travel to exploit goods. Apply, 116/32, Office of this Paper.

TOILET Brushes, Soap, and Perfumery Manufactures.—Advertiser, age 45, is desirous of Representing really good firm on commission or part salary and commission; sound connection with best houses in Midland and Northern Couutics; highest references. "Salesman," 5 Sophie Road, Nottingham.

TRAVELLER, age 46, qualified Chemist, requires re-engagement; many years' experience of road and connection; good selling record and first-class references; now disengaged. Linum" (117/39), Office of this Paper.

SITUATIONS WANTED.

(Colonial, Indian and Foreign.)

1s. for 12 words or less; 6d. for every 10 words beyond, prepaid. The Advertiser may, if preferred, have replies addressed to this Office, and forwarded on payment of an additional charge of 6d.

This heading is reserved for assistants seeking situations in the British Colonies, India, and Dependencies, or elsewhere abroad.

PHARMACIST, ineligible (36), married, 13 years' Colonial experience, seeks re-engagement, tropical or sub-tropical country. 117/11, Office of this Paper.

PHARMACIST seeks situation in Colonies, South Africa, Australia, or New Zealand (previous Colonial experience) as Manager or Assistant; any class of business; present situation as Manager and Buyer 16 years; over military age; references A1; would pay own passage; married. Apply, 119/23, Office of this Paper.

MISCELLANEOUS.

CHOP FITTINGS (SECOND-HAND), Suitable for Large Pharmacy, or can be adapted as required.—16 ft. Plate-glass Wallcase; 16 ft. Handsome Fixture with Glass-labelled Drawers, Mahogany cupboards, etc.; 12 ft. Plate-glass Fronted Counter with Label Drawers, etc.; 7 ft. Handsome Dispensing Screen; Silent Salesman Case; 6 ft. Bent Plate-glass Counter Case; Desk and Perfume Case; £135 the lot; sketches on application; or would divide. PHILIP JOSEPHS & SONS, 93 Old Street, London, E.C.

SECOND-HAND Chemists' Fittings.—We have an exceptionally fine selection of these in all sizes; prices are right, and goods are in first-class condition; we shall be pleased to supply particulars and prices. Call or write, RUDDUCK & CO., 262 Old Street, London, E.C.

MCQUEEN'S System of Accounts works out profit and loss account,, balance sheet, and income-tax return with guaranteed certainty; prepare for even bigger war tax and over-assessment by using this "Accountant on your Desk"; simple as ABC. Full particulars and testimonials, free, McQueen & Co., Moat Road W., Leicester.

 $24~\mathrm{LB}.$ Saccharin Tablets $\frac{1}{4}$ grains, 112 lb. Camphor Cubes $\frac{1}{4}$ oz., for Sale (or will exchange for Pot. Permang. or similar drugs). Also 28 lb. Pot. Permang. for Sale; 5 cwt. Creta Precip., 5°_2 cwt. White Base. Lever, 107 Leicester Road, Broughton Park, Manchester.

8/6 Years,

Co'umns.

JAY MACK'S LEDGER

Am too busy to talk this week!

Get it from Ayrton's, Bleasdale's, Evans, Raimes (Edin.) or Ucal; or send me cheque on appro. See it for yourself.

Years, Columns.

10/6

MACK-IVOR. Hightown P.O., CREWE.

Assessment the second s

HIGH PRICES OF Vest Price for Vest Pocket Kodaks, R. Lens, and Watch Pocket Carbines,

Try us for Single Models, Dealers' Stocks, Ensignettes, &c. We reply promptly and courteo-sly, and goods are returned at once, CARRIAGE PAID, if no business is done.

WATSONS, 84 HIGH STREET, SHEFFIELD.

WAR WANTS EXCHANGE.

The object of this section is to facilitate the interchange of pharmaceutical products which are scarce at present owing to the War, and which the inquirers have failed to obtain through the instomary business channels.

TERMS

Minimum charge (including registration fee) of 1/for six words or less; 2d. per word beyond, prepaid Inquiries are inserted with a registration number attached to each item, and replies will be communicated direct to the inquirers by the Information Department of "THE CHEMIST] AND DRUGGIST."

WANTED.

Frincipals having any of the following articles to dispose of are requested to notify the fact by postcard or otherwise stating quantity and price to

THE WAR WANTS EXCHANGE,

"The Chemist and Druggist," 42 Cannon Street, London, E.C.

Duboisine sulphate (197/900) Malt glidine (197/900) Naftalan (197/900) Eugallol (197/900) Gelineau's Dragees (197/900) Resorcin (118/20) Iodoglidine tablets (197/900) Ung. cycloform co. (197/900) Lenigallol (197/900)

FOR DISPOSAL.

Bona-fide buyers of the following articles are requested to communicate their exact requirements promptly to us, and we shall place them in touch with sellers:-

Phenacetin caffein (118/9)Saccharin, 2 oz. (197/55)

tablets Salicine, 8 oz. (197/55) Sulphonal tablets (118/9) Trional tablets (118/9)

EXCHANGE COLUMN

One halfpenny per word with name and address. One penny per word if we register the address and attach a number. No advertisement inserted for less than 6d.

Price-lists, trade circulars, samples, and printed matter can in no case be forwarded, the Box numbers being intended exclusively for specific answers to particular advertisements. The Publisher reserves the right to open and refuse to forward any communications received which he may consider contrary to this rule.

FOR DISPOSAL.

BOOKS AND PERIODICALS.

BEST offer for "Pharmaceutical Journal," posted Mondays, for 1917. Jackson, Chemist, Sandiacre.

DENTAL.

FOR sale, 12 dental showpieces, celluloid and vulcanite, from 38. 6d. R. Lamb. 123 West End Lane, London.

DRUGS AND CHEMICALS

POT. permang., 7 lb. Offers to Hulme & Co., Ltd., Chemists, Oldham.

WHAT offers? 8 oz. tinct. buchu, cantharides plaster, powder, vanilla. Hasselby, Hastings.

LIQUORICE Juice in 10-lb. blocks; I cwt. for sale; or would divide. Apply, 111/32. Office of this Paper.

9 DOZ. 25s. phenacetin caffeine tablets (Wigglesworth), 18s. doz.; one 2s. 9d. Guyeose; 2 oz. phenolphthalein. Galloway, Black-

OPTICAL AND PHOTOGRAPHIC.

OPTICS.—For sale, sight-testing case in oak, bevelled glass, in good condition, cost £18; Sutcliffe's trial frame, cost £2 12s. 6d.; also astigmeter, cost 12s. 6d.; canse of disposal, death; nearest offer. Apply, Mrs. Edwards, Manchester Honse, Newcastle Emlyn, South Wales.

PROPRIETARY ARTICLES.

ROBERTS patent tube filling machine for sale; worked by hand and of good capacity; perfect condition. Cuxson, Gerrard & Co., Ltd., Oldbury.

SHOP FITTINGS.

DE GRAVE'S brass counter scales and weights. Dear, 111 Royal Parade, Eastbonrne.

MISCELLANEOUS.

SWISS dyes, 3 x 1 oz. jaune Indien, 2 oz. brilliant red, 1 oz. violet, 1 oz. orange, 4 oz. ruby; 4 lb. egg albumeu flake. Offers, Brampton, Sudbnry, Suffolk.

1 x 1,000 cc. stopd. test mixer, 1 x 100 cc. burette, 2 x 50 cc. burettes, 1 circular French pneumatic trough, 11 inches diam.; stopd. glass retorts, 1 x 40 oz., 2 x 20 oz., 1 x 8 oz.; glass receivers, 160 oz., 100 oz., 12 oz.; plain glass receivers, 160 oz., 60 oz., 40 oz.; Wonllf's bottle sundry pipettes; H. & S. flask; glass tube and rod; price 45s. Brampton, Sudbury, Suffolk.

WANTED.

GUM ELASTIC PIPES WANTED.

Best prices given for quick deliveries.

Write 'Gum Elastic Pipes' c/o Streets, 30 Cornhill, London, E.C.

WANTED, Amanic henna shampoo powders. Galloway, Blackpool. "RICHARDSON'S Mechanical Dentistry." State edition, price, 117/23, Office of this Paper.

WANTED, recipes, toilet, medicinal, veterinary, label with price. Samuel Arthur, Chemist, Redruth.

WANTED, indigo and sodium hydrosulphite. Submit samples and prices to Dr. Enea Rnata, Turin, Italy.

WANTED, salicin in quantity; spot or forward delivery; lowest eash terms. Address, 193/71, Office of this Paper

SACCHARIN wanted, in powder, granules, or tablets, small or large lots for cash. Walton, Chemist, Batley Carr.

DENTAL chair, also dental spitoon; must be cheap. Fullest particulars to "Chemist," 91 High Street, Sevenoaks.

SOAP mill and plodder; would consider taking over an entire plant for milling and stamping processes. Replies to 180/10, Office of this Paper.

ATLAS of skin diseases, or separate coloured plates of psoriasis, syeosis, impetigo, urticaria. Size and price, Bosustow, Chemist, South Norwood.

OPTICAL books, Minor, Major, Chemists' books; send prepaid for valuation; cash offers per return. Gower, Bookseller, 41 Voltaire Road, Clapham, S.W.

WANTED, about 100 glass wiekered carboys, 5 or 10 gallons; also 1 gross stoppered winchesters. Price and condition to Luty Wells, Yiewsley, Middlesex.

WANTED, boot-polish time, to hold about 1 lb.; size about 4 in. by 1 in. We are also buyers of liquid metal-polish tins. Samples and prices to "Brytenup," Polish Works, Preston, Lancs.

DISEASES AND REMEDIES.

A concise survey of the most Modern Methods of Medicine written expressly for the Drug Trade by Physicians and Pharmacists. This treatise was first published as a part of The Chemist and Druggist Library under the impression, which has been justified by experience, that it is of the utmost importance that Retail Chemists should be acquainted with Diseases as well as with Beredies and that they cannot always and as well as with Beredies and that they cannot always are well as with Remedies, and that they cannot duly understand the latter without a knowledge of the former. Accordingly the book contains descriptions of human ailments from Abscess to Tapeworm. Each monograph. Describes the Symptoms and is followed by Treatment. Supplementary to these concise monographs are: Surgical History Designing and Treatment Supplementary to these concise monographs are: Surgical History Designing and Treatment. Supplementary to these concise monographs are: Surgical Hints, Poisoning and Treatment, Surgical and Medical Appliances, a Chapter on Dentistry for Druggists, and one on Sight-Testing. It contains 270 pages, and is published at 3s. net, by post 3s. 3d., from the Offices of "THE CHEMIST & DRUGGIST," 42 CANNON ST., LONDON, E.C.; or from any of the Wholesale Houses at the published price.

Cocaine Supplies for Hospitals.

The Home Office has issued the following order regarding the supply of cocaine to hospitals (see ℓ' . d: D., December 30, p. 54):

In pursuance of the Defence of the Realm (Consolida-In pursuance of the Defence of the Realm (Consolidation) Regulations, I hereby grant to all persons employed or engaged in dispensing medicines at any public hospital, or other public institution, being persons duly registered under the Pharmacy Act, 1868, a permit to purchase cocaine and opium for the use of the hospital or other institution as aforesaid, in accordance with the conditions prescribed by the Regulations.

Coming Events.

This section of the "C. & D." is reserved for advance notices of meetings or other events. These should be received by Wednesday of the week before the meetings, etc., occur.

Sunday, January 28.

Pharmacists' Volunteer Corps, Duke of York's, Chelsea, S.W. At 9.30 a.m., Staff parade; 11 a.m., Sanitation lecture by Q.M. Sergt. Luke; 12 moon, First-aid lecture by Dr. Durno for Section 5 and recruits. On Wednesday and Thursday, at 2.45 r.m., classes in First-aid will be held at 17 Bloomsbury. Square, W.C.

Tuesday, January 30.

Cardiff Pharmacists' Association, Augel Hotel, at 8.45 P.M. Presidential address on "The Pharmacy and Pharmacist in War-time.'

Wednesday, January 31.

blic Pharmacists' and Dispensers' Association, St. Bride Institute, Bride Lanc, London, E.C., at 8 P.M. Annual general meeting and election of officers, followed by short papers.

Thursday, February 1.

th London Pharmacists' Association, St. Padarn's Hal Salterton Road, Holloway, N., at 3 p.m. Ordinary meeting. Padarn's Hall.

Great Yarmouth Pharmaceutical Association, at 8 P.M. meeting.

neeting.

Chemical Society, Burlington Honse, Piccadilly, London, W., at 8 r.M. Among the papers to be communicated are: "Chrominm Phosphate," by Messrs. A. F. Joseph and W. N. Rae: "The Detection of Traces of Mercuny Salts in Toxicological Work," by Mr. K. C. Browning: "The Catalytic Breaching of Oils. Fats, and Waxes," by Mr. H. Rai: "Alkaloidal Derivatives of Mercuric Nitrate," by Dr. P. C. 'Ray; "The Detergent Action of Soap," by Dr. S. U. Pickering,

Friday, February 2.

Royal Institution of Great Britain, Albemarle Street, Piccadilly.

London, W., at 5.30 p.m. Dr. Charles Carpenter on "The Supply of Gascous Energy."

Blackpool and Fylde Pharmacists' Association, Palatine Hotel, Blackpool, at 8.30 r.m. Annual meeting.

Trade-marks Applied for.

The figures in parentheses refer to the classes in which the marks are grouped, for a list of which, with particulars as to registration, see "The Chemist and Druggist Diary," 1917, p. 220.

(From "The Trade-marks Journal," January 10, 1917.)

"Presto Health Herbs," etc., on label with picture of Old English dancers; for a tablet medicine (3). By W. Davies & Co., Glasfryn, Gorwydd Road, Gowerton, Glam. 374,935. (Associated.)

"Novacetin"; for a medicine (3). By E. Neustead & Co., 21 Chilworth Street, Gloucester Terrace, W. 375,449.

"Regecuta"; for medicinal chemicals (3). By Regesan, Ltd., Trent Street, Nottingham. 375,908. (Associated.)

"Effersal."; for medicinal chemicals (3). By Cerebos, Ltd., Station Road, Greatham, Durham. 376.011.

Picture of boy carrying box bearing words "Help for the Brave." "Boisselier," and words "Boy Selea knows what she likes" ("Boisseliers" disclaimed); for food substances (42). By the Watford Manufacturing Co., Ltd., Watford. 371,955. (Associated.)

"Eurol."; for a petrol substitute (47). By A. Emley, 39 Orchard Street, Newcastle-upon-Tyne. 376,124.

"Juno": for toilet-soaps (48). By Gerard Bros., Ltd., New Basford, Nottingham. 374,995. (Associated.)

"Doline": for perfumery, etc. (48). By Arthur H. Cox & Co., Ltd., Brighton. 376,033. (From "The Trade-marks Journal," January 10, 1917.)



COLD CURE TABLETS

This packing has proved most popular, the smartly labelled tins are convenient for carrying in the pocket, and where shown the line has sold readily.

Supplied in neatly labelled "Silent Salesman" Outers.

Per 4/- dozen. ,, 45/- gross

PINE PELLETS

50 Pellets neatly packed in a smartly lithographed tin.

BEAUTIFUL COLOUR EFFECT.

SMART NEW STYLE

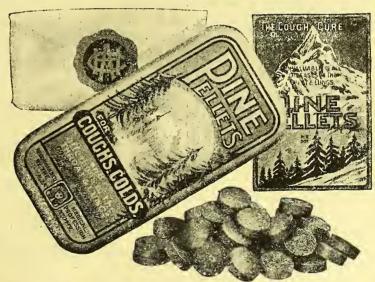
3/9 PER DOZEN.

42/- PER GROSS.

Showcards 8 in. \times $5\frac{1}{2}$ in. FREF.

EXCELLENT FORMULA.

TRY A WINDOW SHOW NOW!



ARTHUR-H-GOX-2-GO-LIGO



Manufacturing Chemists

BRIGHTON



HOURS OF BUSINESS: 8.30 a.m. -5.30 p.m. CLOSE AT 1 p.m. SATURDAYS

LINES



MAW'S OTTO OF ROSE COLD CREAM.

dainty earthenware pots, 6d. size, 4/- doz,



MAW'S EARTHENWARE INHALERS.

No. 2146/S. Marbled. Three

No. 2140/S. Marpled, Three sizes, 23/6, 29/-, and 39/-per doz.
No. 2147/S. Ditto (as illustrated). White. Three

14/6, 19/9, and 34/-per doz.

The Post

The reduced number of postal deliveries which is shortly to come into force in the City of London one report placing 4.30 p.m. as the last "round" — need not unduly perturb those customers who look to the House of Maw for prompt attention to their requirements.

While we are, of course, dependent upon the Postal Service, we have arranged to do everything in our power to facilitate the completion of orders mailed to us in the shortest possible time. For several months past, in anticipation of such changes, a special early staff has successfully dealt with the mails; they will be competent to handle the extra accumulation of correspondence due to the curtailed deliveries.

This temporary dislocation of the finest mail service in the world recalls the early days of "Maw's," before the advent of the penny post, and when letters were letters. Thomas Carlyle foresaw that the advent of the reduced rates would kill the art of correspondence. shall send a penny letter next time," he wrote to his mother when the cheap postage was about to come in, and he rightly foretold that people would not bother to write good letters when they could send them for next to nothing. At the present day numerous errors occur in business owing to illegible writing.

Letters were a luxury when this House was young. They were House was young. franked at a high rate, and duly delivered to us by stage coach. Now, in addition to a service that would astound the old-time carriers, the telegraph, telephone and cable afford additional sources of communication. Andremember, to ensure prompt delivery of your next

. . .

order to us, add "G.P.O., Box No, 54." to our address.



MAW'S MENTHOL & EUCALYPTUS SNUFF.

A popular preparation, put up in neat tins of a handy size to fit the pocket. Price 2'3 doz.



MAW'S "BUNGALOW" FOOT WARMERS.

... 18/6 doz. 2 pints 21/- ., 26/3 ,,



MAW'S VEST POCKET INHALERS,

TAKES any medicament for inhalation for mouth and nose. Price 3/6 doz., including one on display card. For sale with above: Eucalyptol. Menthol and Pinol compound inhalants.



MAW'S MENTHOL INHALER.

Filled with Menthol Crystals ready for use. Will relieve Coughs, Colds and Nasal Catarrh, the Menthol fumes reaching all interstices of the throat, lungs, and nasal membrane. Price 5/9 doz. including one on display card. play card.



MAW'S "PAREX" (Regd.) RUBBER WATER BOTTLES.

British made, double se med. A range of 14 sizes. Write for prices.



MAW'S CAPSULES.

Ammoniated Quinine Capsules-Dozen. Gross net. 12 in divisioned tins 4/9 ... 24 in round " 8/0 Ammoniated Quinine and Cinnamon Capsules-5/9 ... 12 in divisioned tins ... 62/0

Customer's name and address printed free on gross quantities

"

24 in round

11/0

11/0 ... 9/6 ...



MAW'S RESPIRATORS.

Zinc plates, with velvet border. Order the "Incorrodible" No. 1. Price 12/- doz.

cold weather lines, winter lines—topical lines; one and all of best quality; which is another way of saying "Made by Maw's." Merely a selection, of course.



MAW'S BODY BELTS English pattern. Belt to buckle. Made in felt or flaunel, grey or red. Sizes 28 to 40 inches. From 24/- doz.



MAW'S EUCALYPTUS ICE Put up in useful tins to fit pocket

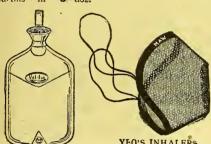
1d. tins ... 9/9 gross.

2d. tins ... 18/6 "

4d. tins ... 3/- doz.



CASCARA
SAGRADA CAPSULES.
Put up in dainty green enamelled metal pocket cases, one dozen in case. For all orders of one gross of tins upwards we print special design and name for customer on the lid without extra charge. Price 48/- gross.



YEO'S INHALERS. Perforated zinc, with bound edges.

MAW'S "VEL-FIN" (Regd.) No. B2773/B, HOT WATER BOTTLES. 4/6 per doz. Red India-rubber. The "Vel-fin" is triple strength at the seam, the sides overlapping and athin piece superimposed. One size only, approximately 8 by 12 in. Capacity equal to ordinary 10 in. by 12 in. Made of best solid rubber. Attractive showcard for window display free. 5/- each. Extra 5 % on one doz.



THE "VILLA" BRONCHITIS KETTLE, The finish of this kettle is much superior to the usual kettle at the price. Capacity $2\frac{1}{2}$ pints with extra wide spreader. Price 2/- each.



MAW'S PAREX (Regd.) LIP SALVE





MAW'S VACUUM FLASKS. Enamelled Leatherette

Put up in red and white, Price 3/9 doz., with By case of 50 2/9½
bonus and display card.

Entancied Learneted Covered 3/4 each.

S. MAW, SON & SONS, 7/12 ALDERSGATE ST., LONDON, E.C.

MAW'S MENTHOL CONES.



MAW'S No. 11 MENTHOL CONE. In polished boxwood case. 4/- doz.

Actual size illustration.

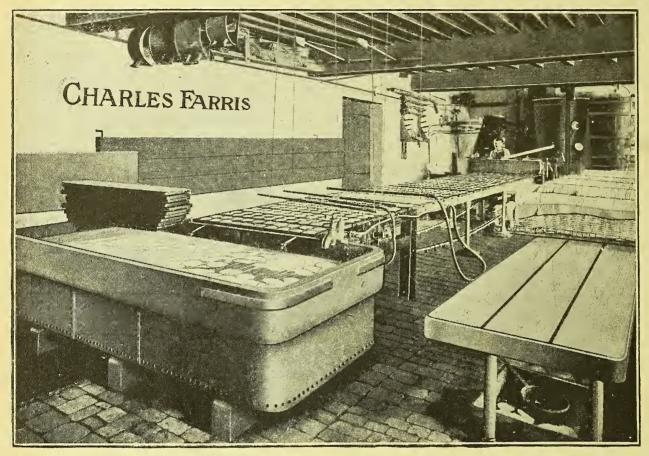


MAW'S No. 13 MENTHOL CONE.

In decorated tin. Menthol mounted on vegetable ivory base. 3 6 doz. Actual size illustration.

Farris's Genuine Air Bleached White Beeswax, B.P.

WELL KNOWN FOR EXCELLENCE AND PURITY NEARLY THREE QUARTERS OF A CENTURY.



FARRIS'S PROCESS No. 5.—THE BLEACHED BEESWAX BEING MELTED INTO DISCS AND CARRIED ALONG AUTOMATICALLY TO THE COOLING TANK.

The only actual Manufacturing Wax Chandler in the City of London.

ORDERS DELIVERED IMMEDIATELY FROM STOCK.



MANUFACTURER AND REFINER OF OILS

of every description.

WAXES

OF EVERY KNOWN KIND.

WAXES PREPARED for SPECIAL PURPOSES.



CHARLES FARRIS, 71 Bishopsgate, London, E.C.

Works: HELMET COURT, BISHOPSGATE, E.C.

Warehouses and Stores: 91 & 93 BISHOPSGATE, and 12 WORMWOOD STREET, E.C.

THE THROAT THE GERM ® THE LOZENGE

The warm, moist condition of the throat being so favourable for the growth of Bacteria, is a source of constant trouble to the Doctor.

He is constantly being asked, "Oh, give me something to ease my throat!"

Diet and treatment are necessary, but take time.

For immediate relief try "COFECTANT" LOZENGES. They are pleasant to the taste; they contain "COFECTANT," the most powerful germicidal fluid known; they are harmless and they kill germs, thereby relieving the hoarseness and soreness immediately, and leaving the Doctor to restore the patient to health in his own way and with greater comfort to both.

1/3 per Box.

Edward Cook & Co. Ltd. BOW LONDON. E.

Attractive Showcards with each Order.



LTD.

SUNDRIES

FEEDERS
TOWELS
SUSPENSORIES
MENTHOL
WASHING GLOVES
MEASURES
SYRINGES

AND

EVERYTHING

FOR

EXPORT AND WHOLESALE



ILLUSTRATED PRICE LIST ON APPLICATION.

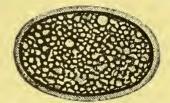
REMBRANDT WORKS, COMMERCIAL ST., LONDON, E.



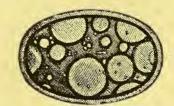
BURGOYNE'S CREAM EMULSION

Palatable & Easily Digested.

Guaranteed to contain the Finest NORWEGIAN Cod Liver Oil.



BURGOYNE'S "CREAM" EMULSION.



ORDINARY EMULSION.

PHOTOGRAPHS MAGNIFIED 140 TIMES.

Burgoyne's "Cream" Emulsion is supplied with several different styles of Labels and Cartons, printed with Chemist's own name and address.

Samples and Prices on application.

Manufactured in the Laboratories of

Burgoyne, Burbidges & Co.

Manufacturing Chemists,

LTD.

EAST HAM-

-LONDON, E.

Telegrams: "Zotalene, 'Phone, LONDON."
Telephone: EAST HAM 686 (four lines).





During the shorter days

amateur workers must do most of their printing by artificial light. "Gaslight" and "Bromide" papers are the obvious first choice, but to those who desire something better—some medium which will give a fuller presentation of a negative's artistic qualities—

JAN. 27

Sun rises 7.49 Sun sets 4.37





makes a strong appeal.

"RAJINA" is a developing paper having a speed intermediate between Bromide and Gaslight, worked in the same manner, but giving results quite distinct from both. The colour of the print is a rich olive-black of great depth and transparency, resembling a Collodio-Chloride print that has been toned with gold and platinum. Every photographer who aims at results beyond the ordinary bromide print will give "RAJINA" a trial. Prices same as for Bromide or Gaslight papers.

RAJAR

PLATES, PAPERS & POSTCARDS for ALL-THE-YEAR-ROUND USE

Stock these to meet the demand

RAJAR Bromide Paper

is intended for making enlargements by artificial light or daylight, and for rapid contact printing. The paper can be developed with any good developer, and yields prints of a beautiful black colour with fine half-tones and pearly whites. When desired, prints of a fine sepia and blue colour, closely resembling carbon prints, can-easily be produced by toning. It is made in the following grades: It is made in the following grades

CONTACT MATT. Smooth. A smoothsurface paper with a fine matt surface, closely resembling a platinotype print. Recommended for contact printing from small negatives, and enlargements in which fine detail!is required.!

ENLARGING MATT. Smooth. Specially made for enlarging, especially by artificial light. No paper on the market to equal it for this particular purpose.

PLATINO-MATT. Rough. For enlarging and for contact printing from large negatives. Easily worked up in black and white.

SEMI-MATT. Smooth. For fine por-trait work. Beautiful semi-matt surface yielding intense transparent shadows and delicate half-tones.

SATIN. Has a velvet surface with rather more gloss than our semi-matt grade. The finished results have the depth and brilliancy of a wet Bromide print.

and brilliancy of a wet Bromide print.

CREAM CRAYON. A tinted paper specially made for artistic effects. Toned prints are particularly effective.

GLOSSY. Combines the rapid printing qualities of bromide with the glossy surface of a silver print Largely used for Midget and Stamp Photographs.

GLOSSY CARD. Similar to the paper, but on thick card. Highly recommended for unmounted prints and slip-in mounts.

SEMI-MATT CARD. A smooth card with a beautiful carbon surface.

SATIN CARD. A thick card with a velvet surface.

MATT CARD. A thick card with a Platino-matt surface. Largely used for unmounted prints and Xmas cards.

BROMIDE POSTCARDS. Matt or Glossy surface. Acknowledged to be the best printed cards in the trade. They are in demand by nearly all the largest publishers.



RAJAR GOODS

GUARANTEED.

and this explains why Retailers find it to their advantage to carry a full stock. Any complaints from customers are immediately met by us in the most generous spirit, so that the Buyer is pleased and the Retailer relieved of any trouble.

Write us for full details & Trade Prices.

RAJAR Gaslight Papers

and Cards normally give black tones, but they can be toned sepia by the Sulphide method. Being rapid they are suitable for printing by artificial light, and yet do not require the use of a dark room.

They are distinguished by their ease of working, freedom from fog and stains, brilliancy of the image, and pureness of the whites. They never show abrasion or friction marks, and are without doubt tla finest Gaslight paper and cards extant.

We make two grades—"Ordinary" for normal negatives and contrasty results, and "Special Portrait" for dense negatives and soft results.

For all usual work the ordinary grade is the best, but for hard negatives and professional studio work, where soft effects are desired, the "Special Portrait" should be used.

Both paper and cards are made in Glossy, Matt, Semi-Matt, and Satin Surfaces.

A user's experience:

"GASLIGHT."

"Having given the Gaslight Paper a fair trial, I find it superior to any previously used. The results are just beautiful, not one stain or spoiled print in the lot."

H. T., Accrington.

Limited, Manufacturers of FILMS, PLATES & PAPERS 10. MOBBERLEY in CHESHIRE



WESTMINSTER COLLEGE.

PHONE: BRIXTON 1728.

Principals: G. S. V. WILLS, Ph.C. (Founder); P. H. WOODNOTH, M.P.S.

JANUARY MINOR EXAMINATION—100%

5 Students only entered, and all passed in Practical and Theory.

Miss M. E. A. WATT, Clapton; Mr. L. A. E. KIRKPATRICK, Upton Manor; Mr. R. A. ASLETT, Hove; Mr. F. A. LESTER, Sheffield; Mr. R. WHITE, Brigg.

NEXT MINOR COURSE WILL COMMENCE APRIL 11.

FEE to JULY Examination, 10 GUINEAS.

The fee paid for postal instruction is deducted from the College fee when the Student enters the College Day Classes.

NEXT APOTHECARIES' HALL COURSE COMMENCES JANUARY 31. FEE to JULY Examination, 8 GUINEAS.

During 1916 SIXTY-THREE Ladies QUALIFIED as DISPENSERS from this College.

NOTE NEW ADDRESS (removed from 402 Clapham Road):-

For Prospectus, &c., Call, Write or 'Phone THE PRINCIPALS, 190 Clapham Road, London, S.W.

LONDON COLLEGE OF PHARMACY

Principal - - - HENRY WOOTTON, B.Sc. (Lond.)

ENTRIES CAN NOW BE RECEIVED FOR THE FOLLOWING COURSES:—

MINOR COURSE - April 9

Fee to July Examination, 92 guineas.

APOTHECARIES' HALL COURSE - Jan. 31

Fee to July Examination, 10 guineas.

Separate Class Rooms & Museum for Lady Students.

The number of Students who have passed the Pharmaceutical Examination from the London College since its establishment exceeds that from any other school.

For Prospectus, &c., apply to the Principal,
London College of Chemistry and Pharmacy, 361 Clapham Road, London, S.W.

The Northern College of Pharmacy BURLINGTON STREET, MANCHESTER. S.W. TELEPHONE: CITY 7698.

Principal: E. GOWER BRYANT, F.C.S.

At the recent Minor Examinations, six students from the College presented themselves. Of these, FIVE were successful, FOUR at the first attempt.

Miss E. N. CLUCAS, Bradford. Mr. H. CHADWICK, Wigan. Miss D. DEAN, Manchester. Mr. H. THOMAS, Rochdale. Mr. A. VICKERS, Whitehaven.

The new course for the Apothecaries' Hall Examination commenced on January 25.

All particulars on application.

LIVERPOOL SCHOOL OF PHARMACY,

PRINCIPAL: H. HUMPHREYS

Recommended by the Liverpool Chemists' Association.

MINOR COURSE for APRIL and JAN. 3.

Apothecaries' Hall COURSE for APRIL and JAN. 29.

PART TIME CLASSES are held on TUESDAYS and WEDNESDAYS, from 3 to 10 p.m.

COURSE commenced on JAN. 3.

A Syllabus containing full particulars of the various Examinations, along with other useful information in the form of Volumetric Equations. Focalitations, Specific Gravities, etc., post free from the

Principal, 18 Colquitt Street, Liverpool.

BIRMINGHAM & MIDLAND

COLLEGE OF CHEMISTRY, PHARMACY AND BOTANY,

45 NEWHALL STREET, BIRMINGHAM.

Principal-C. L. SCOTT, Pharmaceutical Chemist.

FULL-TIME, AFTERNOON & EVENING CLASSES.

THOROUGH UP-TO-DATE & RAPID TUITION.

Full Particulars on Application.

COLLEGE OF OPTICS

GLASGOW and EDINBURGH.

Principal: T. S. BAIRD, F.R.M.S., D.C.O., &c.,

12 RENFIELD STREET, GLASGOW.

Qualified by the various Examinations in Optics and Sight-Testing of the College of Optics, Glasgow; the Worshipful Company of Spectacle Makers, London; and the British Optical Association, &c.

Fellow of the Royal Microscopical Society, &c. First Prizeman in Advanced Mathematics, Physics. and Glasgow; Science Scholarship Holder.

Correspondence Courses.

(Special offer during War.)

Write at once for particulars of above and D.C.O. Examination. Note New Address where all communications should be directed.

T. S. BAIRD, F.R.M.S., 12 Renfield Street, Glasgow.

AN EXCELLENT OPPORTUNITY FOR WOMEN.

British Optical Institute, Limited

FERN LODGE, 20a GROVE ROAD, BRIXTON, S.W.

TECHNICAL INSTRUCTION IN OPTICS.

Day and Evening Classes during Term ume in preparation for all Optical Examinations, under the supervision of the Principal, assisted by Mr. H. Firth, F.B.O.A., F.S.M.C. (1st Prizeman). Well thought-out and successful Postal Courses for Provincial, Colonial and Foreign Students.

CLINIC, EXPERIMENTAL & LABORATORY WORK.

As Women are now needed in the Optical Profession to replace men called up on active service, special short Courses of Study, with abundant opportunities for practical work, are being held continuously at the Institute to fit women for an occupation so eminently suited to their capacities.

For further particulars and fully detailed Prospectus, apply to the Principal, Dr. MAX COQUE, B.Sc. (Telephone: Brixton 677.)

EVANS

FOR

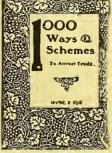
PHOTOGRAPHIC REQUISITES

EVANS SONS LESCHER & WEBB

New York, U.S.A.

See also pp. 36, 74, 133, 137, 143, 146, 150, 154, 164, 173, 204, 210, 213.

BOOKS for PHARMACISTS



1000 WAYS AND SCHEMES TO ATTRACT TRADE. — This book is the result of over five years of observation and labour, and describes more than a thousand ideas that druggists and other tradesmen have successfully put into practice to increase their sales. Many of them have transformed losing businesses into profitable ones. Almost any one of them will bring you larger business and give you a bigger income. 208 pages 9½ × 7, and 120 illustrations. Printed on the best of white paper, and bound in handsomely ornamented cover. Third edition. Price, post paid, 4s.; with THE SPATULA 1 year, 8s.

ONE THOUSAND FORMULAS.—A compilation giving the practical working druggist full information about the making of one thousand of the most common and saleable preparations, by L. W. Marshall. Price 3s.; with The SPATULA 1 year, 7s.

SPATULA VETERINARY FORMULARY.—A collection of practical formulas for all diseases common among horses, cattle, swine, poultry, and dogs, by L. W. Marshall. 2s.; with THE SPATULA 1 year, 6s.

TOILET PREPARATIONS..—A treatise on the manufacture of Casein Massage Creams, Complexion Creams, Cold Creams and Face Creams; Powders, Toilet Lotions, Camphor Ices, Bath Tablets, and other similar preparations, including hundreds of the latest and best formulas. Compiled and edited by L.W. Marshall. Price, post paid, 2s.; with The Spatula 1 year, 6s.

SHOW WINDOW BACKGROUNDS.—By George J. Cowan.
The most useful book on the subject ever published. Every
design drawn in such a way that any one can follow out the
idea. 250 pages, 200 illustrations. Price, post paid, 7s.; with
THE SPATULA 1 year, 8s.

SPATULA SODA-WAYER GUIDE.—Fourth Edition. Entirely rewritten and brought right up to date. Nearly 2,000 formulas and subjects. Standard American authority on all kinds of fountain drinks. 4s.; with The Spatula 1 year, 8s.

HOW TO MAKE TABLETS.—By Frank Edel. A treatise on the manufacture by retail druggists of all kinds of Compressed Tablets, together with a large number of practical formulas. 1s.; with THE SPATULA 1 year, 6s.

15,000 FORMULAS.—A new and revised edition of the "Cyclopedia of Receipts." By A. A. Hopkins, Query Editor of the Scientific American. Probably the most practical and valuable collection of formulas and receipts ever published. Besides the receipts there is a vast amount of information on various subjects. 8 pp. illustrated circular giving contents free. Price 21s.; with The Spatula 1 year, 23s.

PRICELESS book of recipes, and nothing but recipes. Not a cook book. Silk cloth finish. Post paid, 3s.; with The Spatula 1 year, 7s.

300 READY-TO-USE ADS. FOR DRUGGISTS.—By Chas. L. Archbold and other experts. Something for every department and every season. Nearly all have each an appropriate illustration which may be used or not as desired. So arranged that they may be cut out as needed and sent to your local paper, or to your printer as copy for counter slips. Price, post paid, 4s.; with The Spatula I year, 8s.



SPATULA CUT CATALOGUE.—
14th edition: The best collection of half-tone and line cuts for advertising and illustrating purposes in the world.
Thousands of beautiful illustrations.
Price 2s.; with THE SPATULA 1 year, 6s.

THE SPATULA BEAUTY BOOK.

—Full-page half-tone pictures from photographs of sixty-five of the handsomest women in the world. Printed in monotone on the best 120-b. coated paper. Price, post paid, 1s. 6d.; with THE SPATULA 1 year, 6s.

FREE.—We will send to any Chemist and Druggist in any part of the world, sending us 5d. In postage stamps, a sample copy of THE SPATULA, one of the handsomest and most practical drug journals published, full of American vim and push, a 16-page illustrated catalogue of pharmaceutical books and a large picture in colours of the Spatula Soda-Water Girí.

(Cheques on local Banks in Great Britain accepted.)

Make Post Office Money Orders payable to
1RVING P. FOX, Treasurer.

The SPATULA, 14 Building, Boston, Mass.

" Open " Window-Dressing

with OAK PEDESTALS and GLASS SHELVES

makes your window easier to dress, uses less stock, enables you to achieve a more artistic and effective display, and by constant rearrangement permits the attainment of a different style of dressing each week.



No. SF 1107. Polished. Solid Oak Pedestals with Fluted Pillars. Inches.

Doz. 22/-27/6 18 • • • • 36/-45/-30

For use with Glass Shelves or Cardboard Display Cards.

PLATE GLASS OVAL SHELVES.

Polished Edges. ... 5/9 each. 24 × 18

ROUND SHELVES. 18×18 ... 9/5 each. 24×24 ... 13/- "

Full Illustrated List of Shot fittings, No. C. 269, Free.

Dudley & Company, 451, 550 & 558 Holloway Rd.,

SHOPFITTINGS, SHOWCASES, SIGNS,

Of Best Quality, Excellent Style, High-class Finish, at Lowest Prices.

SHOPS MODERNISED. ESTIMATES FREE. Competent Fitters sent to all parts.

AYRTON-GRAHAM, Ltd., LIVERPOOL

SHOP FRONTS

Modern Improvements.

H. MILLS, the Chemists' practical Shop Fitter, Shop Front Builder with the latest designs and largest experience. Plans submitted for structural Alterations. Estimates Free.

Steam Works: 163-5 OLD STREET, LONDON, E.C.

> On hand—a large stock of Drug Fittings, Counters, Dispensing Screens, Wall Cases, etc., equal to new.-Bargains!

CHEMISTS' SHOPFITTINGS

WANTED.—Every Chemist requiring Shopfittings to send for my estimate; you $can^{i}t$ do better. I shall be pleased to send you rough sketches free on receipt of particulars. Over 30 years' experience.

Glass Showcases, Drugfittings, Dispensing Screens, Window Enclosures, Glass Shelves, Wall Cases, Perfume Cases, Plate Glass Front Counters, Drawers, &c., at lowest prices.

NOTE ADDRESS-

GEORGE

The Chemists' Working Shopfitter, 29 MACCLESFIELD STREET, CITY RD., LONDON, E.C.

PRELIMINARY EXAMINATION for PHARMACEUTICAL STUDENTS

THE College of Preceptors holds Preliminary Examinations in March, June. September, and December. All the Examinations are held in London, Aberdeen, Birmingham, Blackburn, Bristol, Cardiff, Edinburgh, Glasgow, Leeds, Liverpool, Manchester, Newcastle-ou-Tyne, and Nottingham. For the June and December Examinations there are other entres, including Flackpool, Brighton, Carmarthen, Cheltenham, Croydon, Exeter, Margate, Plymouth, Portsmonth, Sheffield, Southampton, Southend, Sonthport, Sunderland, Weston-super-Mare, and York. For Regulations apply to the Secretary, College of Preceptors, Bloomsbury Square, London, W.C.

Headquarters Photograp

Chemists should write us for PRICE LIST and full particulars of all Photo requisites.

W. BUTCHER & SONS, Ltd. CAMERA HOUSE, FARRINGDON AV., EC.

. Tel. Address :1" Pillischer London."

Established 1843.

88 NEW BOND STREET. J. PILLISCHER. LONDON. W.

MANUFACTURER OF SCIENTIFIC INSTRUMENTS AND

OF MANUFACTURER THE CELEBRATED "INALTERABLE" CLINICAL THERMOMETER.

RECENT EXHIBITIONS: 12 GOLD MEDALS-14 GRANDS PRIX. GAND, 1913, GRAND PRIX; GAND, 1913, HORS CONCOURS. (French Section) (British Section)

et.



British made.

Size of Case, 8½ × 6×5 in. No. N 5/21. Price 23/- net. Fitted with high-speed trembler Make and Break which ensures a steady which ensures a steady soothing current; can be regulated from mild to powerful. A re-liable lasting Dry Cell is concealed in Case, which can be renewed in a few moments.

Net Trade Prices from Large variety in all qualities. 5 - upwards.



THE "PRETALUX" ELECTRIC LIGHT ATTACHMENT for Safety Razor, Pen or Penc.l. Sells at sight. Complete with clip, bulb, and battery. 36/- doz. net.



THE "HUSTLER" MOTOR.

This powerful model is self-starting, runs at a tremendous speed, and works well from 12 volts.

Price 3/6 net.



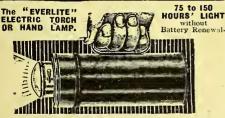
This Electric Portable Attachment is suitable for innumerable purposes where the light rays are required con-centrated in a downward direction.

NO RAYS CAN BE SEEN FROM ABOVE.

Specially designed for night use in the darkened strects, the "Shield-alite" will be found a boon, as the light rays are effectively screened from above.

The who'e ontfit is complete with Volex" Refill and Special Metal Voley" Filament Bulb.

Price 3/4 each net.



The "Reverlite" Electric Torch fills the want where a portable electric light is required ready at all times, and capable of giving many continuous or intermittent hours of burning.

Complete, including Metal Filament Bulb and "Volex"
Duo 22-volt Dry Cell. Code: Everlite. 8/3 each net.
Spare "Volex" Duo Dry Cell, 3/3 each net. Spare Bulbs, 6d. each net.

British Made Pocket Lamps, Torches and Refille

A FULL RANGE OF THESE GOODS IS SHOWN IN OUR NEW SEASON'S LIST, SENT FREE ON REQUEST.

Prices are per dozen net, and include special "Volex" Export Batteries and special Tungswire Export Bulbs. Reliable in all climates.



SPECIAL Mo. 307. British Made Pocket Lamp Case complete with 3-in. Lens, Battery and Metal Filament Bulb					
Complete with Refills and Best	1} lens.	18			
Bulbs. DESCRIPTION.	No. Dz.	No			
Popular quality, assorted	310 17/9	903			

Complete with Refills and Best	1} 1	ens.	1 1 1	ens.	
Bulbs. DESCRIPTION.			No. Dz.		
Popular quality, assorted covers, polished fittings	310	17/9	903	18/9	
Medium quality, leatherette covers, nickelled fittings	325	19/9	905	20/9	
Superior quality, in best leather- ette covering, heavily nickelled	324	26/-	904	28/-	
De Luxe quality, real leather covers, and heavily nickelled	423	33/-	S20	37/-	

Best Quality British Torches,

THE "TROPHY" TORCH. Full-size Torch of Remarkable Value. This Torch is British Made, highly finished, with nickelled fittings and special Clip Switch. This clip operates the switch and provides a very effective attachment by which the torch can be suspended from the pocket or belt.

The light weight of this torch fitted with efficient clip and long-life battery hipe to produce a perfect torch for the traveller or traveller.

bine to produce a perfect torch for the traveller or trenches.



It is highly recommended for Export,

Weight, 12 oz, complete. Size 9 inches by 1g.

No. N21/42, complete with 3-cell battery and bulb, 4/- net.

THE "CLIPLITE" TORCH, as above, 6g in. long. Complete, 3/- net.



No. 11.—**THE "MAJOR" TORCH**, as illustrated. Size, $9\frac{1}{2} \times 1\frac{1}{2}$ ins., complete with bulb and battery, 6/3 each net. Also supplied with real leather covering, De Luxe model, complete, 9/6 each net. Best quality Refills, $7 \times 1\frac{1}{4}$ ins., 1/6 each net.

Best quality Refuls, 7 × 1½ ms., 1/6 each net.

No. 41.—THE "KIT" TORCH. Similar to above but shorter, to take a 2-cell battery; most portable and convenient; quite reliable for export. Size 7×1½ ms., complete, 5/6 each net. Best quality Refils, 4½ Y1½ ins., 1/3 each net.

No. 24.—THE "OFFICER" TORCH. High-class Inspection Torch, similar to "Major," with most powerful reflector and 2½ in. lens. Size, 10½ Y1½ ins., complete, 7/9 each net.

Best Quality Refils, 7×1½ ms., 1/6 each. Spare Bulbs, -/6 each net.



"DUCHESS" WAISTCOAT POCKET ELECTRIC LAMP.

Most

reliable Fitted with bull's-eye lens, heavily nickelled caps. Recommended Export. Complete with Refill and Bulb.

Price 30/doz. net

STATE OF CARDINATE ORD

POCKET LAMP DRY

British Manufacture.

BATTERIES.

Net Trade Price, 6/per dozen.

Made of the finest chemicals and finished by a special process to ensure maximum life. Specially suitable for export.



WE desire to thank all our friends in the trade for their support in the past, and to assure them that our aim in the future will still be to give them every satisfaction by offering our well-known optical lines, including the following specialities:

The "STANDWEAR" Mounting (Finger-piece) in Rolled Gold and Solid Gold.

The "CHALLENGE" Mounting (Finger-piece) in Rolled Gold and "Silvaline."

The "STANDARD" Eyeglass Mounting in Steel, Rolled Gold and Solid Gold.

The "STANDARD" Eyeglass Frame in Steel, Rolled Gold and Solid Gold.

"STOCO" Rolled Gold Cable and Straightside Frames. Guaranteed for 5, 10, 15, 20 and 25 years.

"STOCO" Rolled Gold Oval Bar Astigs. Guaranteed for 5, 10, 15, 20 and 25 years.

"SILVALINE" (Registered). Our Special White Metal Alloy. Cable Side, Straightside and Astig. Frames.

"STOCO" OPTICAL MACHINERY. The merits of which are well known.

"FARRINGTON" SPECTACLE CASES. For which we are the Sole Agents.

"STURDY" EYEGLASS CHAINS, in Rolled Gold and Solid Gold.

LENSES: Large stocks of Edged and Uncut always on hand at RIGHT PRICES.

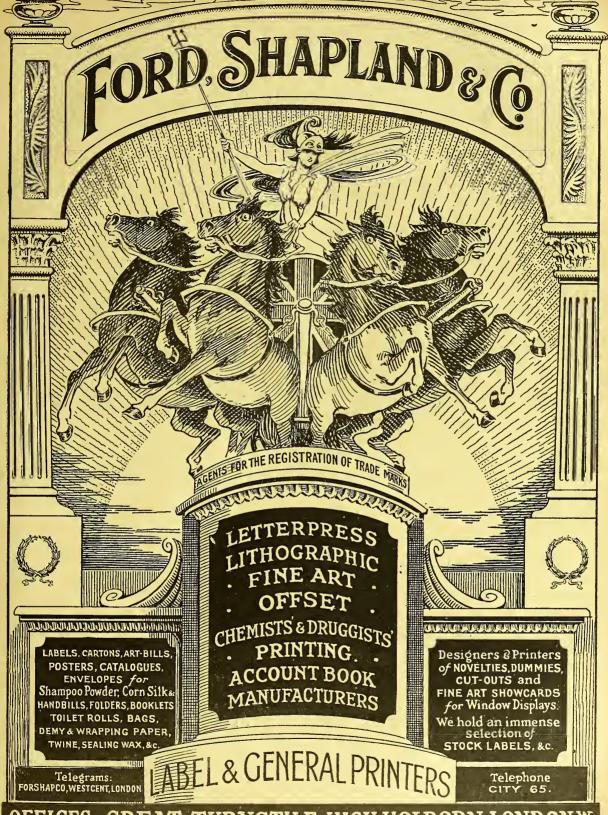
PRESCRIPTION SERVICE.

STANDARD OPTICAL CO., Ltd. 59-62 Hatton Garden * LONDON, E.C.

Factory—GENEVA, NEW YORK, U.S.A.

Telephone: 3060 Holborn (2 lines).

Telegraphic Address: "Salability."



OFFICES: GREAT TURNSTILE, HIGH HOLBORN, LONDON &:



The Cheapest & Best on the Market.

Special Facilities. Let us have your Enquiries.

ISAAC SPENCER & CO.(ABERDEEN) LTD. ABERDEEN



(SPECIALLY SUITABLE) FOR ALL TRADES.) At Last! "THE PERFECT SIGN."

Hundreds of Pounds' worth of Advertising for 30s.

Ta'ks to customers through the window as you would over the Draws Trade. counter. Wording can be changed in a few minutes and as often as desired. First cost—only cost—Simple, neat, always new, everlasting, ever-changeable.

Manufactured by THE EXPERT (Loose Letter) SIGN

(Incorporating H. CONRIDGE & CO.), 26 Ludgate Hill, London, E.C.

Special Distributing Agents-S. MAW, SON & SONS, 7-12 Aldersgate St., LONDON, E.C.

157 Queen Victoria Street,

239 & 240 Upper Thames Street,

LONDON, E.C.

WHOLESALE AND EXPORT DEALERS IN

English, American, French, &c. SOLE AGENTS FOR ROCHE'S HERBAL EMBROCATION,

Burchell's Anodyne Necklaces; Ford's Balsam of Horehound; Bertelli's Catramin Pills, &c.; Pacita, remedy for Horses, Dogs, &c.; Balm of Bethesda; C. & A. Oldridge's Balm of Columbia; Gombault's Veterinary Preparations; the Oleusaban Eucalyptus Disinfectants; Clark's Neuralgic Tincture; Ibeson's Foot Rot Ointment; Woolley's Candy; Digena Tea; Seymour, Hamilton & Co.'s Preparations.

Special Agents for the Concentrated Liquors and other preparations of Messrs. Fletcher & Fletcher.

PRICE LISTS SENT ON APPLICATION.

Agencies undertaken on advantageous terms for I

ORDERS CAREFULLY AND PROMPTLY EXECUTED.

Telegraphic Address-"MEDICINES, CENT, LONDON."

Agencies undertaken on advantageous terms for Proprietary Articles and other goods.

Telephones No. 5698 Central, & No. 285 Bank

R. J. REUTER

Dealer in, and Manufacturer of, Chemists' Sundries,

69 Carter Lane, LONDON, E.C.

THE HOUSE FOR HOME AND EXPORT TRADE

We solicit your inquiries for the following, made in our own Workrooms, under expert supervision, ENTIRELY BRITISH:

WASHING GLOVES
BATH STRAPS
SPONGE BAGS (many varieties)
SPONGE WRAPS (many varieties)
BODY BELTS (many varieties)
POWDER PUFFS

TOILET & ARMY HOLDALLS

(a large selection)
SUSPENSORY BANDAGES
TOILET WASHING SQUARES
CHEST PROTECTORS
H. W. BOTTLE COVERS

SOLE WHOLESALE DEPOT FOR:-

HOGARTH'S Chest-Expanding BRACES

"VEVAX" SAFETY RAZORS & STROPS

"VEVAX" SAFETY RAZOR BLADES

"VEVAX" CREPE BANDAGES

"ASEPTUS" CREPE BANDAGES

"ASEPTUS" Toilet WASHING SQUARES

"VEVAX" HOT WATER BOTTLES

"VEVAX" SOLID I.R. AIR CUSHIONS

"VEVAX" THROAT SPRAYS AND ATOMIZERS

"ARISTON" ALL-GLASS SPRAYS AND NEBULIZERS

"VĒVAX" MANICURE REQUISITES

"VEVAX" BATH POWDER

"VEVAX" POWDER & BATH PUFFS

"VEVAX" BRILLIANTINES

"VEVAX" CRAYON NAILROSE

"VEVAX" SHAVING STICKS

"VEVAX" TOOTH PASTE (several varieties)

HUDSON'S VEGETABLE LEAFLETS

"PHRYNETTE" NAIL POLISH PASTE
BEAUTY LEAVES

WE HOLD STOCKS IN LONDON OF:-

COMBS
HAIR BRUSHES (Ladies' & Military)
TOOTH BRUSHES
SHAVING BRUSHES
NAIL BRUSHES
RIGID AND FLEXIBLE STEEL
NAIL FILES

PEARL & IVORY NAIL TRIMMERS

(a large selection)

NAIL POLISHERS, etc.
THROAT SPRAYS
ATOMIZERS & NEBULIZERS
DOUCHES (all kinds)
ENEMAS
CLINICALS, BATH & SICKROOM
THERMOMETERS
SYRINGES OF EVERY DESCRIPTION

SYRINGES OF EVERY DESCRIPTION PERFUME SPRAYS

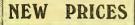
Large Assortments of Manicure and Toilet Requisites

— FOR HOME OR EXPORT —

THERE'S BEEN A CHANGE

IN THE PRICES OF

BISURATED MAGNESIA



POWDER FORM

WHOLESALE

per 30/- dozen

RETAIL

ONE SIZE 3/- ONE PRICE
PER BOTTLE

TABLET FORM

WHOLESALE

Large Flasks ... 24/- per doz' Small do ... 12/- per doz.

RETAIL

Large Flask 2/6 Small do. 1/3

SALE GUARANTEED

IN FUTURE

Bisurated Magnesia in Powder Form will be obtainable in one size only, the small size, formerly retailing at 1.9, having been discontinued, the only size now packed for sale in the United Kingdom is a large bottle retailing at 3/- per bottle.

ONE SIZE-ONE PRICE

THE TABLET FORM remains as before, *i.e.* the tablets are still put up in large and small flasks containing 150 and 60 tablets respectively, but the prices have been increased to 1/3 for the small size and 2/6 for the large.

SATISFACTION OR MONEY BACK

In every package of Bisurated Magnesia we now enclose a coupon entitling the purchasers to a refund of the amount paid if Bisurated Magnesia does not give absolute satisfaction.

This is a strong selling point for enterprising retailers, and one we intend making the most of.

GUARANTEE OF SALE

We supply Bisurated Magnesia to the Trade on the distinct understanding that the sale is guaranteed, and unsold stock can be returned at our expense at any time.



Are you ready to meet the increased demand for Bisurated Magnesia which will arise as a result of the extensive new advertising now appearing? If not, we solicit your co-operation in our mutual interests. On request we will gladly send you full particulars of our plans for promoting sales and increasing business.

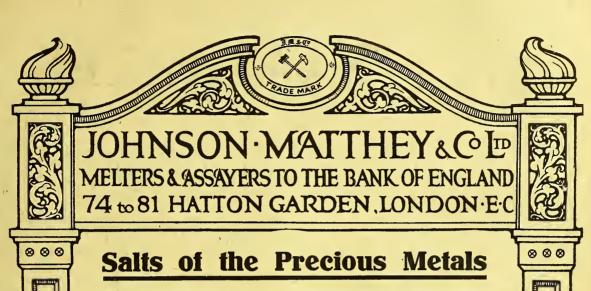
Address

The International Chemical Company, Limited, 7 WYBERT STREET, MUNSTER SQUARE, LONDON, N.W. SOLE DISTRIBUTORS OF

Bisurated Magnesia

THE ANTACID THAT CURES

'Indigestion—dysfepsia—heartburn—flatulence—inflammation—gastritis, &c.



PLAT NUM & PALLADIUM

Sold in form of Sheet, Wire, Ingot, Foil, Sponge, Black, Apparatus. Alloys with Iridium and Rhodium, &c. Catalogue "A" with full descriptions and illustrations fr e on application.

WE BUY GOLD, SILVER, PLATINUM

In pure or impure Metal, Scrap, Residues. Sweep, Precipitates, Ores, Concentrates, Anode Scrapings, Amalgam Salts, Solu-tions, and Battery Plates.

HIGHEST CURRENT RATES. Correspondence Invited.

SILVER, CARAT GOLD, FINE GOLD

Made in similar forms to those of Platinum. In addition, our powerful

ELECTRIC POWER ROLLING MILLS

enable us to supply to order at short notice all large sizes of sheet, circles, `c., for Silver and Goldsmiths.

Write for our useful booklet "C" containing weight equivalents in wide ranges of sizes and raws.

of sizes and gaug 's.

NITRATE OF SILVER Pure Recryst.

888

(No lower quality is made by us.) This preparation is guaranteed to contain the full standard percentage of Fine Silver.

Its purity is unsurpassed. It is supplied to all the leading British Photographic Plate and Paper Manufacturers.

Sold at Competitive Prices.

In indents to shippers specify "Johnson Matthey's" Silver Nitrate.

The most VIOLENT CHANGES of TEMPERATURE have no effect on our

QUARTZ GLASS APPARATUS

(Fused Silica)

Its Co-efficient of Expansion is '0000004. It is quite transparent, and thus differs from the older semi-opaque form.

It is being bought by all the leading Chemists in Great Britain and the Continent.

Made to order however intricate the design.

Should be in every Laboratory. Send for descriptive Catalogue of Apparatus "D."

Among the wide range of Platinum and Gold Salts made by us, we specialise on GOLD CHLORIDE (49/50 %) AND

POTASS. CHLOROPLATINITE In 15-grain Tubes (and upwards) for

Photographic use.
Each tube bears our Trade Mark, and
guarantee of 7½ grains Pure Gold, or
7 grains of Pure Platinum per 15 grains of Salt.

We were the originators of the "non-deliquescent" form of Gold Chloride now in universal demand. Write for our Chemical List, "E."

We are

ANALYSTS AND ASSAYERS OF ORES, MINERALS AND METALS

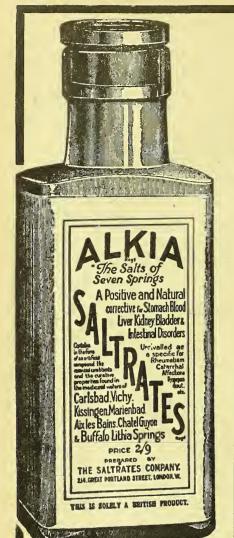
We specialise in Coal Analyses, Stripping Assays of Plated Articles.
Scale of Fees on application. (List "F.")

Our METALLURGICAL SERVICES cover the smelting and refining of Antimony, Bismuth and Quicksilver Ores. Also the Magnetic Separation of Tin and Wolfram, Bismuth and Wolfram, &c.

Cables-"MATTHEY LONDON" (all Codes used).

Telephone-9740 City (6 lines)





ALKIA SALTRATES

The most efficient saline on the market and best value for the money. Pleasant tasting and always pleases the user.

A widely advertised line which you can recommend with absolute confidence.

Sells at **2/9** a bottle (P.A.T.A.)

You can stock these goods on Guaranteed Sale Terms. Carriage paid in United Kingdom on orders for 3 dozen, which may be assorted.

REUDEL BATH SALTRATES

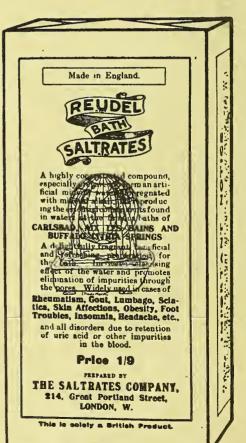
The best selling and most fragrant, refreshing, beneficial and all-round satisfactory preparation for the bath. Now being extensively advertised.

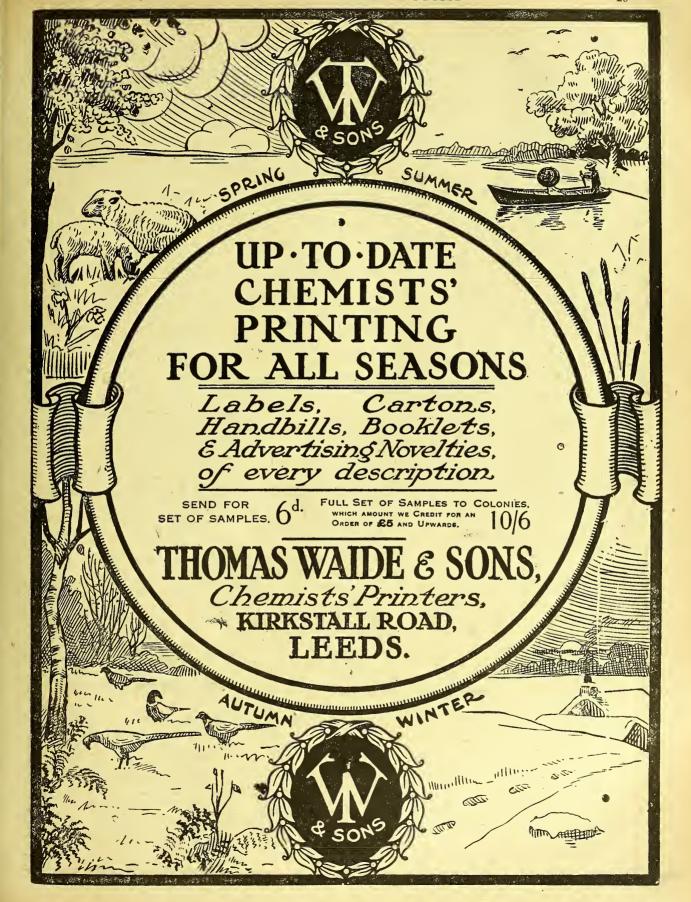
Sells at 1/9 and 2/9 (P.A.T.A.)

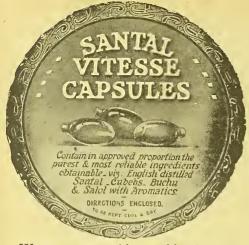
KALSEL

An especially strong but pleasant-tasting effervescent saline for severe and chronic constipation.

Sells at 1/9 a bottle (P.A.T.A.)







We guarantee this combination to be one of the most genuine and reliable on the market. The ingredients stated upon the label are absolutely pure.

2/6 boxes containing 24 ... 20/- doz. 3/6 ,, ,, 36 ... 30/- ,, RETAIL PRICES PROTECTED. Neat Showcard with all orders.

POTTER & CLARKE, LTD

60-64 ARTILLERY LANE, LONDON, E.

And at 24 LUNA STREET, MANCHESTER.

MANUFACTURERS OF

FLEXIBLE CAPSULES

We have recently installed new machinery for the manufacture of Capsules and Perles, and have now one of the most modern plants in the United Kingdom.

The "Winged Lion" Capsules do not shrink, contract or go mouldy, but retain their flexibility for any length of time.

All Capsules are filled with the purest ingredients and are guaranteed effective.

SANTAL CAPSULES.—We would specially direct your attention to the fact that we use the finest "English drawn Santal Wood Oil" only, guaranteed pure, in our Capsules.

CAPSULE LIST SENT ON RECEIPT OF BUSINESS CARD.

POTTER & CLARKE, Ltd.

60, 62 and 64 Artillery Lane, London, And at 24 Luna Street, Great Ancoats, Manchester

WHOLESALE & EXPORT CHEMISTS AND DRUGGISTS

Importers of Crude Drugs from all parts of the World.

Manufacturers of Coated Pills and Compressed Tablets.

Makers of Fluid and Solid Extracts.

Packers of Toilet Specialities and Proprietary Articles.

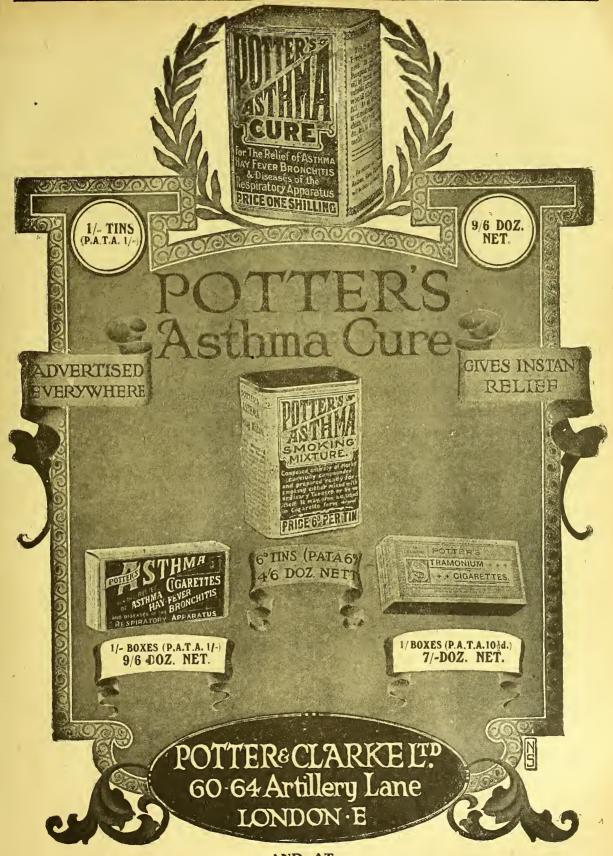
Makers of Lozenges, Juhes, &c., for Chemists' Trade.

Packers of Flower and Vegetable Seeds.

Proprietors of Potter's Asthma Cure and other Specialities.

Growers of Medicinal Plants.

Publishers of Potter's Cyclopædia of Botanic Drugs.



24 LUNA STREET, GREAT ANCOATS, MANCHESTER.

2nd Edition, Revised and Enlarged.

TENTH THOUSAND. CLOTH. 380 PAGES. 8vo.

POTTER'S CYCLOPAEDIA of BOTANIC DRUGS

By R. C. WREN, F.L.S. WITH ADDITIONS BY E. M. HOLMES, F.L.S.

CIVES Action, Distinctive Character, Common & Botanical names and Synonyms, doses and general information concerning every Botanic Drug in common use. Nearly two thousand references, also chapters on Forms of Medicinal Preparations. of Continental Compounds, a Glossary of Botanical Terms. notes on Botanical Names and Authorities, and an Index to Abbreviations of Names of Authorities.

Price 3/6, To the trade 3/- net. Postage 3d.

CAN BE OBTAINED OF THE FOLLOWING FIRMS:-

Baiss Bros. & Stevenson, Ltd., London; Bleasdales, Ltd., York; Burgoyne, Burbidges & Co., London; Butler & Crispe, London; A. H. Cox & Co., Ltd., Burbidges & Co., London; Butler & Crispe, London; A. H. Cox & Co., Ltd., Brighton; Geo. Curling, Wyman & Co., London; R. Daniel & Son, Derby; Duncan, Flockhart & Co., Edinburgh; Evans, Gadd & Co., Ltd., Exeter; Evans Sons Lescher & Webb, Ltd., London and Liverpool; Goodall, Backhouse & Co., Ltd., Leeds; Harker, Stagg & Morgan, Ltd., London; Hodgkinson, Prestons & King, London; Hough, Hoseason & Co., Manchester; Hovenden & Sons, Ltd., London; J. Ismay & Sons, Newcastle; Lofthouse & Saltmer, Ltd., Høll; T. McMullan & Co., Belfast; Raimes & Co., York; Reynolds and Branson, Ltd., Leeds; J. Richardson & Co., Ltd., Leicester; Sangers of London; Southall Bros. & Barclay, Ltd., Birmingham; T. & H. Smith, Ltd., Wheatfield Road, Edinburgh; J. Thompson, Ltd., Liverpool: Wilkinson & Simpson, Ltd., Newcastle-on-Tyne; J. Woolley, Sons & Co., Ltd., Manchester; and of

POTTER & CLARKE, Ltd.,

60/64 Artillery Lane, LONDON, E.

24 Luna St., Gt. Ancoats, MANCHESTER.



BRIDGE

PHARMACEUTICAL AND PHOTOGRAPHIC PRODUCTS

R. W. GREEFF & CO. offer at lowest prices the following products manufactured in the United Kingdom, Allied and Neutral Countries (WHOLESALE QUANTITIES ONLY)

Acetanilid Acetyl Salicylic Acid Amidopyrin Barbitone Beta Naphthol Bromide of Ammonium Bromide of Potassium Bromide of Sodium Chloral Hydrate Cinchonine and Salts Cinchonidine and Salts Citric Acid Cocain Hydrochlor and Puriss Cream of Tartar Creosote Carbonate

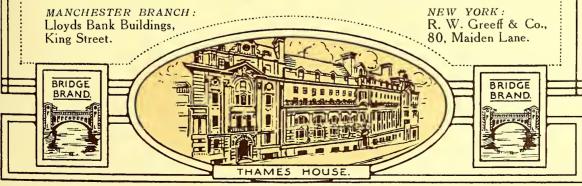
Formaldehyde

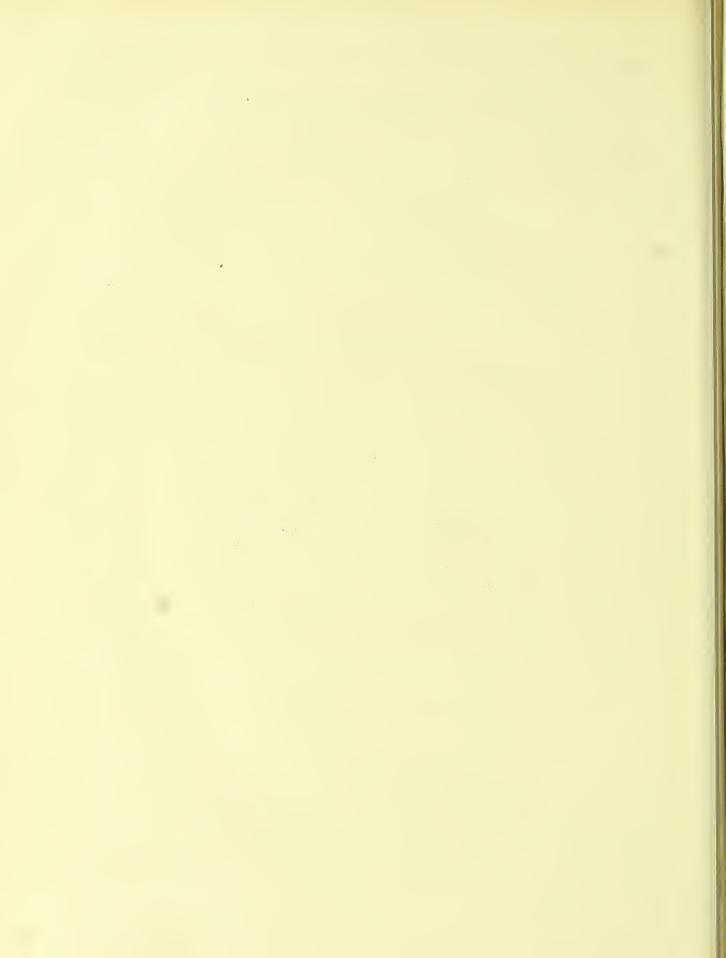
Gallic Acid

Glycerophosphates Guaiacol Carbonate Heliotropin Hexamine Homatropine Hydroquinone Isarol (best Ichthyol substitute) Lithia Carbonate Lithol (Ichthyol substitute) Mercurials Methylene Blue Medicinal Methyl Salicylate Peppermint Oil Pepsines, Pancreatin, Peptone and other digestive Ferments Phenacetin

Phenazone Pyrogallic Acid Potassium Sulpho-Guaiacolate Outnidine and Salts Quinine and Salts Quinine Ethyl Carbonate Salicylic Acid Salicylate of Soda Salol Sugar of Milk Tannic Acid Tannin Albuminate Terpineol Terpine Hydrate Theobromine Thymol Crystals Vanillin

R. W. Greeff & Co. PLACE, LONDON, E.C.





ANTISEPTIC BABY POWDER,

Manufactured by

JOHNSON & JOHNSON.

Is different from all other toilet powders, never cakes or becomes rancid.

Concentrate on Antiseptic

Baby Powder (J. & J.)

BEST
SELLS
THE
BEST.



Make use of excellent WINDOW SHOW material.

-

Make yourself happy in 1917 by having satisfied customers, and a good return by selling this powder.

BEST
SELLS
THE
BEST.



We wish to warn our Customers, so that they may be on their guard, that our package is being imitated. This step, which is so easy, is an undignified and shabby attempt to rob us of our good-will. **WARNING:** The contents cannot be imitated, and the Trade Mark cannot be imitated; and we would ask those Customers, who have handled this preparation for a quarter of a century with every satisfaction to themselves and to their clients, to resent this method of copying other firms productions by insisting on having the original package bearing the registered Trade Mark, which is the guarantee of quality.

IOHN TIMPSON & CO.. Ltd.

TIMPSON & CO., Ltd. 104, GOLDEN LANE, LONDON, E.C.

THE BEST TOILET POWDER.

ANTISEPTIC BABY POWDER, one of Johnson & Johnson's standardised products, known and sold all over the world, stands in a class by itself. It is not made in a soap factory, which, after all, is not the cleanest of places, but in the laboratory of the largest firm in the world making a speciality of antiseptic dressings and surgical requisites generally.

NOT only is the greatest care employed in the selection of the ingredients entering into the actual powder, but the conditions under which the article is manufactured are such as to enable the chemist to bring before its patrons an article which he can honestly and conscientiously declare to be manufactured in a properly equipped factory, where absolute cleanliness prevails and antiseptic methods are employed.

IT becomes apparent to the user that in this powder there is something different from all other toilet powders. When the powder is applied to the folds of a child's skin and some time allowed to elapse, it will be found that the powder has not become caked and gritty like so many so-called toilet powders, but is quite soft. This gives the coolness which is the desired end and which is possessed by no other toilet powder on the market.

IT will be found by the chemist handling this line that to make the maximum of profit on Antiseptic Baby Powder he has to buy a fairly large quantity, and the question will naturally arise, Is he justified in stocking this quantity with the resultant lock-up of capital?

THE answer is YES! Thousands of chemists have done it already and have found it to their advantage from a "profit" point of view. Let the average chemist go over his shelves and he will be surprised, no doubt, to find that he is stocking as many as a dozen different varieties of toilet powder, no one of which is demanded by the public to any extent.

CONCENTRATING on Antiseptic Baby Powder (J. & J.) and buying the larger quantity will show larger profits; using the window matter and advertising aids supplied by the firm, will give the chemist not only more profits but satisfied customers. The price is within the reach of all and the can actually contains, in weight, more powder than any competitive line on the market.

THIS toilet powder was originally manufactured for medical men as a mild dressing for babies' skin. Medical practitioners want an emollient antiseptic powder and this preparation supplies that want. Skin and toilet specialists have used Antiseptic Baby Powder for a generation. It is used in hospitals, children's homes and asylums more than any other powder.

THE numberless complexion powders and face powders (so called) on the market cannot lay claim to any antiseptic properties. They are invariably "gritty" and not always free from certain acid properties which are injurious to the skin. Antiseptic Baby Powder, J. & J., may safely be allowed to take the place of the much advertised "face powders" on the market.

GENTLEMEN find Antiseptic Baby Powder very soothing to the skin after shaving, and its regular use prevents that roughness produced by the razor on a sensitive skin, and also the "rash" caused by the alkaline properties of some shaving soaps.

McK&R CAPSULEP PILLS

WILL KEEP IN ANY CLIMATE

M^cKESSON & ROBBINS

Manufacturing Chemists NEW YORK U.S.A.

London Agents

S.MAW SON & SONS 7 TO 12 · ALDERSGATE ST.

"McK. & R." Capsuled Pills

According to Formulas of the British Pharmacopæia and other Standard Authorities

ACONITE CRYSTALS. ALOES, OILUTE (Dr. Hall Dinner Pill), 4 grs. ALOES AND IRON, B. P., 5 ers ALOES ANO MYRRH, B. P., 3 and 5 grs. ALOIN. 1-10, 1-4, 1-2 and 1 gr ALOIN COMPOUNO. ALDIN, HYDSCYAMUS, NUX VOM, AND IPECAC. (Pil. Salutis, Dr. Thomas.) ALOIN AND STRYCHNINE. ALOIN, STRYCHNINE AND BELLACONNA. ALOIN, STRYCH. AND BELLACONNA COMP. ALOIN, STRYCH., BELLAOONNA ANO IPECAC. ALOIN OR APERIENT, No. 1. ALOIN OR APERIENT, No. 2. ALOIN OR APERIENT, No 3 ALOIN OR APERIENT, No. 4 ANTI-OYSPEPSIA (Fothergill) ANTI-MALARIAL (See OUININE COMPOUNO), APHROOISIAC (See OAMIANA AND PHOS-PHORUS COMPOUND). ARSENIOUS ACIO, 1-100, 1-60, 1-30 and 1-20 gr ASAFETIDA COMP., B. P., ATROPINE, 1-200 and 1-100 gr BLENNOSTASINE, 1, 2, 3 and 5 gr BLUE MASS, B. P., 1, 2, 3 and 5 grs. BLUE MASS, COLOCYNTH AND HYOSCYAMUS, CALCIUM SULPHIDE, 1-10, 1-4, 1-2 and 1 gr. CALOMEL, 1-20, 1-10, 1-4, 1-2, 1, 2, 3 and 5 grs. CALOMEL, COLOCYNTH AND HYDSCYAMUS. CALOMEL COMP., B. P. (Plummer), CALOMEL AND OPIUM. CAMPHOR, MONO-BROMATEO, 2 and 5 grs. CANNABIS INOICA EXTRACT, 1-4 and 1-2 gr. CASCARA SACRADA EXTRACT, 2 and 3 grs. CATHARTIC COMPOUND, U. S. P. (Purgative.) CATHARTIC IMPROVEO (See LAXATIVE VECETABLE). COOLINE, 1-8, 1-4, 1-2, and 1 gr. COLOCYNTH COMP., B.P., 4 and 5 grs COLOCYNTH COMP. AND BLUE MASS, 5 grs.

1-500 gr. COLOCYNTH COMP. AND CALOMEL, 5 grs. COLOCYNTH AND HYOSCYAMUS, B.P., 5 grs. CORROSIVE SUBLIMATE, 1-30, 1-20, 1-10 gr. DAMIANA AND PHOSPH. COMP. (APHRODISIAC) DICITALIN. 1-60 gr. OINNER (Lady Webster). ECLECTIC OR PODOPHYLLIN. EMMENACOCUE. FMMENACOCUE (Mutter) 2, 3 and 5 grs. FRCOTIN. Each pill contains the active principles of 30 grains Ergot of Rye, or 30 minims of the liquid or fluid Extract. EUONYMIN. 2 and 3 gr. EUONYMIN COMP. FERRICINOUS (Blaud) 3 ore FERRUCINOUS (Blaud) 5 grs CUAIAQUIN, 1. 2 and 3 grs. (Guaiacol Quinine Bisulphonate.) IODOFORM. 1 gr IRON ARSENATE, 1.8 pr IRON CARBONATE, B. P., 5 ers. IRON BY HYOROCEN, 1, 2 and 4 grs. IRON 10010E (Blancard) 1 gr. IRON AND QUININE CITRATE, 2 grs IRON, QUININE AND STRYCHNINE. LAXATIVE, VECETABLE (Improved Cathartic) MANCANESE BINOXIOE, 2 grs. MERCURY BINIOOIOE, 1-116 gr. MERCURY PROTO-100IDE, 1-20,1-16.1-8 1-4 gr MERCURY WITH CHALK, No. 1 (Hutchinson) MERCURY WITH CHALK, No. 2 (Hutchinson) MERCURY WITH CHALK, No 3 (Hutchinson) MORPHINE MURIATE, 1-100 and 1-50 gr. NITRO-CLYCERIN. OPIUM ANO CAMPHOR. OPIUM POWO., 1 gr PEPSIN, PURE, CONCENTRATEO,

PHOSPHORUS, 1-100, 1-50 and 1-30 gr. PHOSPHORUS AND IRON. PHOSPHORUS, IRON AND QUININE. PHOSPHORUS AND NUX VOMICA. PHOSPHORUS, NUX VOMICA AND IRON. PHOSPHORUS AND QUININE. PHOSPHORUS, OUININE, IRON AND STRYCH. PHOSPHORUS AND VALER, ZINC. 1-8, 1-4 and 1-2 gr. POOOPHYLLIN, POOOPHYLLIN COMP. POOOPHYLLIN COMP. (Dr. Janeway) QUININE BROMIOE (Hydrobromate) 1, 2, 3 grs. QUININE MURIATE, 1, 2 and 3 grs. **QUININE AND CAPSICUM.** QUININE BI-SULPHATE, 1-4. 1-2. 1. 2. 3. 4. 5 grs OUININE COMP. (Anti-Malarial) OUININE SULPHATE, 1-4, 1-2, 1, 2, 3, 4, 5 grs. QUININE AND STRYCHNINE. QUININE VALERIANATES, 1-2. 1. 2 and 3 grs. RHUBARB COMP., B. P. 5 gra. RHUBARB COMP. AND BLUE MASS. 5 grs. SALYCILIC ACIO, 2 and 5 grs. STROPHANTHUS AND IRON. STRYCHNINE, 1-200, 1-100, 1-60, 1-50, 1-40 1-30 and 1-20 gr. STRYCHNINE SULPHATE, 1-200, 1-100, 1-60. 1-50, 1-40 and 1-30 gr. THYMOL (Thymic Acid) 2 1-2 grs. TONIC (Dr. Aiken) TONIC-LAXATIVE (Fothergill) TRIPLEX. VALERIANATES QUININE, IRON AND STRYCH. WARBURG TINCTURE. WARBURG TINCTURE WITHOUT ALOES. ZINC PHOSPHIOE AND EXT. NUX VOMICA 1 and 2 grs. ZINC VALERIANATES,



MCKESSON & ROBBINS

INCORPORATED

NEW YORK, U. S. A.

Solicit inquiries for:

Jalap
Senega
Hydrastis
Sarsaparilla
Balsam Peru
Balsam Copaiba
Oil of Sandalwood
Oil of Peppermint

Sole Export Agents for the Products of

New York Quinine & Chemical Works, Ltd.
QUININE, MORPHINE, CODEINE, ACETANILIDE, Etc.



etc., free from British Agents on request.

short, every time you make a first sale of Calox you are reasonably assured of another regular Calox customer.

McK&R

Retail Price, 1/3d Price to Trade, 11/- per doz.(on P.A. T. A. plan) stamped.

The Oxygen Tooth Powder

Calox, in contact with moisture, releases nascent oxygen, and this it is that creates in the mouth a condition of refreshing cleanliness that is unique and delightful. Calox Tooth Powder also diminishes the tendency to tartar deposit, and removes every trace of stain without injuring the enamel.

BRITISH DEPOT:

G. B. Kent & Sons, Ltd., 75, Farringdon Rd., London

Manufacturers: McKesson & Robbins, Incorporated, New York.

Allenburys' Jujubes & Pastilles.

MADE BY
PATENT PROCESS.



The "Allenburys" Pastilles

Supplied in decorated tins.

Prices: Retail, 6d. and 1/-; Wholesale, 4/10 and 9/- per doz. ½ lb, and 1 lb. air-tight tins 17/9 and 34/- per doz.

The "Allenburys" Medicated Throat Pastilles

Supplied in decorated tins.

Prices: Retail, 1/- and 1/10; Wholesale, 9/- and 24/3 per doz 1 lb. air-tight tins: Retail, 3/6; Wholesale, 43/6 per doz.

For list of Medicated Pastilles see pages 131 to 134 General Price List



DRYING PASTILLES, WARE MILLS



Toilet Preparations.

SPECIMENS OF LABELS FORWARDED ON REQUEST.

LAVENDER FIELD, WARE MILLS

Packed in Flats, Rnds., or Amer. Flats. Sizes—20z., 40z.

Nux Vomica & Jaborandi Hair Wash Packed in W.G. Panelled Flats. Sizes—4 o/... 6 oz... 12 oz. E88 Shampoo Powders

Supplied in envelopes, packed 7 in box, or loose.

Violet Powder

Violet Powder
Packed in cardboard barrels. Packed in cardboard barrels. Sizes—4 oz., 8 oz. Sizes—8 oz., 16 oz. Saponaceous Líquid Dentifrice
Packed in W.G. panelled Direct Squares. Sizes—2 oz., 4 oz.

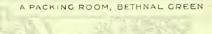
Carbolic Tooth Paste
Packed in collapsible tubes.

Pandruff Lotion

Carbolic Tooth Paste
Packed in Veg. green Flats,
Sizes—1 oz., 2 oz., 4 oz.
Eau de Cologne

Packed in W.G. Cologne bottles.

Nor. bottles.
Sizes—107., 20z., 40z.
Rosemary & Cantharidine
Hair Wash
Packed in W.G. Rounds or
Amer. Flats.
Sizes—60z., 80z., 120z.
Toilet Paraffin
Packed in W.G. panelled Flats.
Sizes—30z., 40z., 60z.
Water Softener
Packed in cardboard barrels.





Packed Drugs (NON LIABLE) and Pharmaceuticals.



A CORNER OF THE ANALYTICAL LABORATORY, B.G.

Ammoniated Tincture of Quinine 1 oz., 2 oz., 4 oz. white glass stoppered flats.

Chemical Food Neuralgia Mixture

toz., 8 oz., 16 oz. dispensing flats. 6 oz. and 12 oz. dispensing flats.

Compound Liquorice Powder No. 3: 2 in 4 oz., 4 in 8 oz. white glass kalis

"One Day" Cold Cure
Boxed, 24 and 36 in each.

Quinine and Iron Tonic
6 oz. and 12 oz. dispensing flats

Gout and Rhoumatic Mixture 6 oz. and 12 oz. dispensing flats.

Milk of Magnesia
4 oz., and 8 oz., wrapped.

Sugar of Milk
½ lb. and 1 lb. lever lidded tins.

A DISTINCT STYLE OF LABEL CAN BE RESERVED FOR A CHEMIST IN HIS LOCALITY.





Superfatted Toilet Soaps.

SUPPLIED IN BULK CERTIFICATE WRAPPED.



OR PACKED IN FANCY BOXES.



Superfatted Toilet Soap

Finest Quality.

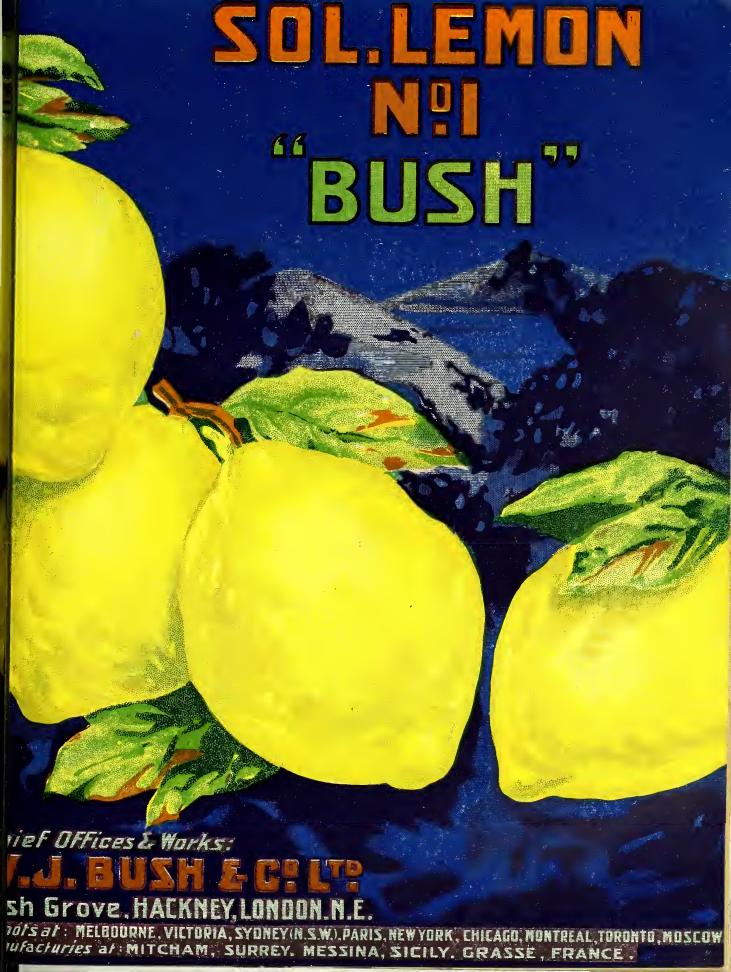
Bulk: Large Round Bath Small , 1005 Square Bath , 1003 Oval, Oblong, Imperial, Wedgwood, Lily Wrapped: Oval, Oblong, Imperial, Wedgwood, Boxed .

Minimum quantity for printing: 6 doz. boxes, 12 doz. wrapped tablets,

Treble Milled Toilet Soaps

Supplied in wooden boxes. 3 doz. tablets in box. Lily, mould 1007. Small Ovals, mould 1018. Special quotations to Buyers in quantity. Samples on Request.







ESS.
LIME JUICE & SODA

DRY GINGER ALE

ESS.

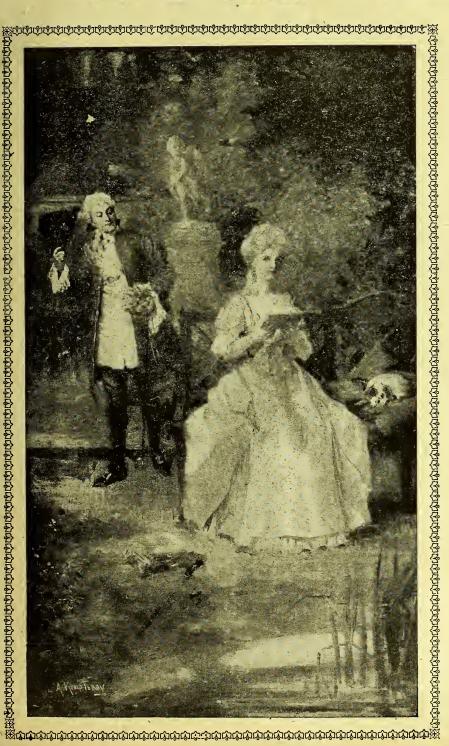
STONE GINGER BEER

W.J.Bush & Co. LTD ASH GROVE, HACKNEY LONDON. N.E.

POTTER & MOORE'S

-FINEST OLD ENGLISH MITCHAM-

LAVENDER WATER.



LAVENDER WATER.

1/9	size	 14/-	per doz.
3/-	.,,	 24/-	"
4/3	,,	 34/-	,,
7/6	,,	 60/-	,,
14/6	,,	 116/-	.,

LAVENDER BATH SALTS.

2/-s	ize	16/-	per doz.
4/6	,,	36/-	,,
7/6	,,	60/-	,,
12/6	,,	96/-	,,

LAVENDER SMELLING SALTS.

6d. size	 5/6	per	doz.
1/- ,,	 9/-	,,	

SACHETS.

Lavender	48 /- pe	er gross.
Crushed Rose	e 48 /-	,,
Carnation	48/-	,,

Proprietors:

W.J. Bush & Co.

Ash Grove, Hackney, LONDON, N.E.

MELBOURNE, SYDNEY,
AND MOSCOW.

ESSONA TOILET SPECIALITIES

Brilliantines:	rotected Retail.	Per D	oz.
No. 1 1 toz., Assorted Perfumes -	Retair.	3	9
4 01	_	6	0
	_	3	6
,, 3 1½,, ,, ,, ,,	-	5	6
", $3a \ 2\frac{1}{2}$ ", " " "		3	О
Floral Oils for the hair, 2½ oz. (conce Violet, Jasmine, Honeysuckle, Rose			
	2/-	13	G
Greaseless Hair Cream, 4 oz.			
Perfumed Carnation	1/-	6	0
Terramed Garnation -	• / ·	•	•
Toilet Paraffin. 72d. line -	-	4	9
,, ,, 1/- ,, -	-	7	6
ar ·		3	9
Lime Gream, 4,0z	-	3	9
Shampoo Powders, beautifully	•	Gro	oss.
packed and perfumed	2d.	12	0
Penny Line. Extra Good (not price	d) -	6	6
		Doz	
Skin Cream (Liquid Vanishing) -	1/-	7	9
	1/6	11	6
	, -		٠
Tooth Powders. 2 oz. gilt tir	18:		
Eau de Cologne	-	2	9
White Carbolic	-	2	9
Peppermint	-	2	9
OXYGEN (Speciality)		2	9

THE BEST SELLING

Solid Brilliantine.



At Popular Prices (Prot cted).

Handsomely Packed in Gilt Tins and well Perfumed.

6d. size - 3/6 doz. 1/- ,, (de Luxe perfume) 7/-doz.

Showcards - Gratis.

All Toilet Goods in Bulk.

Send for Quotations.

ALL ORDERS (Large and CARRIAGE PAID Small) IN ENGLAND AND WALES.

Orders from Scotland and Ireland also Carriage Paid, but unless half the value of same 1s made up of Goods not packed in glass, 23% extra is charged.

5 % Discount for Prompt Payment.

ESSONA PERFUMERY CO., English Perfumers, WIMBLEDON.

MAGNUS。 MABEE & REYNARD, Inc.

257 Pearl Street. Cable Address-

New York City, U.S.A.

Importers and Manufacturers.

ESSENTIAL OILS, VANILLA BEANS. DRUGS & CHEMICALS.

We offer for sale-

Oil Peppermint, American Oil Sassafras, Natural

- ,, Spearmint
- Birch (Wintergreen)
- "Wintergreen Leaf
- ,, Cedarwood
- Limes, Distilled ... H.P.
- Artificial
- , Wormseed, Baltimore
- ,, Wormwood, American
- , Sandalwood, W.I.
- Balsam Tolu
 - Copaiba
 - Peru

We solicit correspondence relating to the purchase or sale of any article used in the Drug, Perfumery or Soap Trades.

ESTABLISHED 1846.

TO WHOLESALE AND EXPORT TRADES.



EXTRACTS RESINS TINCTURES IN BOND **ESSENTIAL OILS**

WILLIAM RANSOM & SON, LTD., MANUFACTURING CHEMISTS. HITCHIN, Nr. LONDON.

Telephone: 95 HITCHIN.

Wickered Bottles

FOR THE TRADE.



We guarantee prices 5 to 10% cheaper than invoice prices of any other firm in Britain.

Styles and quotations on application.

RIVERS, HILL & CO., Ltd.
Broadstone, Dorset.

A. Boake Roberts & Co., Ltd.. STRATFORD. LONDON.E.

Distillers and direct
Importers of all important

Essential Oils.

Manufacturers and Distillers of

ESSENCES, SYNTHETIC PERFUMES, &c.

including

Anethol, Citral,
Citronellol, Eugenol,
Geraniol, Geranylacetate,
&c.

Terpeneless Oil of Lemon, Sesquiterpeneless Oil of Lemon.

Write for samples and quotations.

A.Boake Roberts & Co., Ltd..

THE SOAPS TO STOCK

Gibbs's Cold Cream Toilet Soap

Gibbs's "Kura" Toilet Soap

Gibbs's Shaving Soap

Gibbs's Dentifrice

ALL SHOW A GOOD PROFIT, ALL IN PUBLIC DEMAND

WRITE FOR TERMS TO—

D.&W. GIBBS, City Soap Works, LONDON, E.

Established 200 years.

D. & W. GIBBS, City Soap Works, LONDON, E.

Established 200 years.

٠٠١ كـ الحي الحواليون بحواليون بحواليون المواليون المواليون لحواليون لجوالهوا المواليون ليون لهوا لحوالهوا

FOR

Essential Oils

EVANS SONS LESCHER & WEBB

Liverpool and London New York, U.S.A.

See also pp. 19, 74, 133, 137, 143, 146, 150, 154, 164, 173, 204, 210, 213.

ABOUT WORD E CREAM

To meet the present

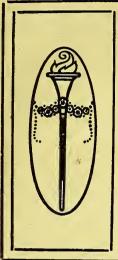
BIG DEMAND

for a First - class Lime Cream for the Hair, we are prepared to supply promptly in All Quantities, packed as required, up to 40-gall. casks, Most Reasonable

prices.

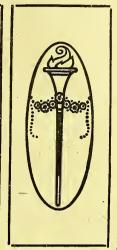
Apply, stating quantity required,
— for samples and quotations —

Shen Works, Tower Bridge Road, LONDON, S.E.



SAML. LAMBERT

MINCING LANE, LONDON, E.C.



IMPORTERS

EXPORTERS

WERCHANTS

CRUDE DRUGS



ESSENTIAL OILS

CHEMICALS

Acids, Gallic Citric Tartaric

Aloes Balsams, Canada Copaiba Peru Tolu

Barks, Cascara, etc. Beeswax

Bromides All Chemicals Cream Tartar Ergot of Rye Ext. Witch Hazel Insect Flowers Menthol Oils, Cod Liver

Bergamot Lemon Orange and Terpeneless Linseed Fennel Peppermint Santalwood

Eucalyptus

Olive Quicksilver Roots, Gentian

Belladonna

Ipecac. Licorice

Orris

Rhubarb

Sarsaparilla

Senega Squills

Senna Leaves and Pods

Turpentine

Fine & Crude Chemicals etc. etc.

Sole Agents for-

Oils: Lerrou, Bergamot, Orange; Terpeneless Oils: Lemon, Bergamot, Orange.—Fratelli de Pasquale & Co., Messina. Bay Rum and Bay Oil.—Bornn, St. Thomas.

Essential Oils, Drugs, Chemicals, &c.—National Aniline & Chemical Co., New York.

CHAS. ZIMMERMANN & CO. (CHEMICALS) LTD.

9/10 St. Mary-at-Hill, London, E.C.

Telegrams { Inland : "Acidolan, Bilgate, London." Foreign : "Acidolan, London."

Telephones: Avenue, 5933, 5934, 5935, 5936.

SICILIAN OILS, S. & G. Brand.

BERGAMOT LEMON NEROLI-ORANGE **TANGERINE** GEND

SAMPLES

PRODUCT E.M.S. HONEYSUCKLE 183 HONEYSUCKLE 186 ROSE DES ALPES

SWISS SYNTHETICS

YOUR

AROMATIC **CHEMICALS**

FLOWER OILS (Absolute, Liquid, Concrete)

FLOWER WATERS

ON APPLICATION.

We recommend a trial.

BUYING

SPANISH OILS

FENNEL GERANIUM MYRTLE ROSEMARY SPIKE

INQUIRIES

FRENCH OILS

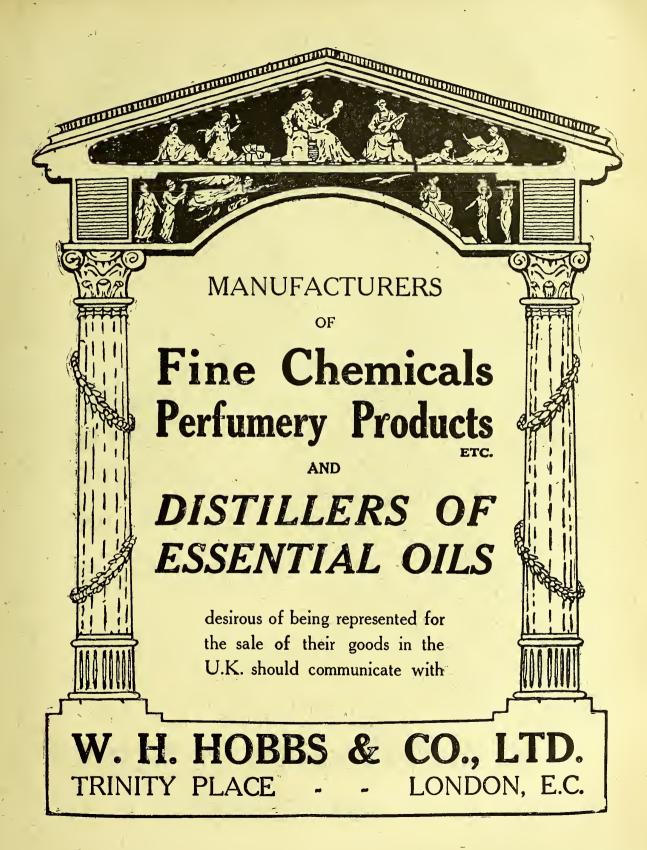
GERANIUM LAVENDER **NEROLI** PETITGRAIN ROSEMARY THYME

PLEASE APPLY FOR LIST OF ARTICLES.

Lowest prices of the day quoted promptly on request.

EXPORT ORDERS. We give export orders our very best attention, and shall be happy to receive inquiries from Wholesale Houses.

BRITISH FIRM.





(MITCHAM ROAD) LTD.

WEST CROYDON, SURREY.

seven Farms and THREE DISTILLERIES in SURREY.

Gold Medal

Paris Universal Exhibition, 1900 FRANCO-BRITISH EXHIBITION, LONDON, 1908

Grand Prize

The highest awards for the production of

ESSENTIAL OILS OF

PEPPERMINT, LAVENDER and CAMOMILE

Dodge @ Olcott's "D @ O" BRAND

for

Pure Essential Oils as they leave the Still.

We manufacture or select the following Oils & Drugs, in which we specialise, for the Drug, Soapmaking, Confectionery & Perfume Industries:

OIL PEPPERMINT

The cream of the American Crop.

OIL CEDARWOOD OIL SWEET BIRCH OIL SASSAFRAS

OIL AMYRIS

OIL CAMPHOR "SASSAFRASSY"
OIL PATCHOULI LEAF
OIL SANTAL, E.I.
ETC.

SAFROL TERPINEOL TONKA BEANS BALSAMS

(direct genuine import)
TOLU, PERUCOPAIBA

Samples and Market Reports cheerfully furnished on application.

DODGE & OLCOTT CO.

London Office: 20 Mark Lane, E.C.

'Phone: City 2468. Telegrams (Inland only): "Egdarf, Fen, London."



LABORATORY OF GENERAL PHARMACOLOGY,

8, Rue Vivienne, Paris.

LONDON AGENTS:
WILCOX, JOZEAU & Co., 49, Haymarket, S.W.



CHAPOTEAUT'S CAPSULES of

PHOSPHOGLYCERATE of LIME.

THE BEST TONIC FOR FORTIFYING AND BUILDING UP THE NERVOUS SYSTEM.

Sold by all Chemists, Wholesale: 8, Rue Vivienne PARIS.

MORRHUOL CHAPOTEAUT



CAPSULES

MORRHUOL DE CHAPOTEAUT is extracted from cod-liver oil, and contains all its efficacious properties without the disagreeable taste.

It cures Coughs, Bronchitis and Catarrh, restores the appetite, and gives force to feeble persons.

SOLD BY ALL DRUGGISTS.

CHANDRON'S DROPS

(Gouttes des Colonies)

A harmless antiseptic preventative against CHOLERA FERMENTATION - INDIGESTION Cother intestinal disturbances.

SOLD BY ALL CHEMISTS



LONDON AGENTS
HEPPELL & CO., 164, Piccadilly, W.

A SCALA OF ODOURS

AS GIVEN BY OUR SCIENTIFICALLY MADE SYNTHETICS, IS

THE MATERIAL

FOR

CHARMING PERFUMES

IF USED BY A SKILFUL PERFUMER, BECAUSE THEY ARE PURE TO THE NOSE AS WELL AS TO THE SCIENTIFIC TEST.

OUR

ALCOHOLS & ALDEHYDES

OF THE ALIPHATIC SERIES:

 $C_8 - C_9 - C_{10} - C_{11} - C_{12}$

- ARE -

INDISPENSABLE

IN ROSE AND OTHER FLOWER PERFUMES.

POLAK & SCHWARZ'S ESSENCEFABRIEKEN, LTD.

ZAANDAM

ESTABLISHED
1889.

HOLLAND.



ALLEN'S



the well-known

ALL BRITISH FIRM

keep in Stock

ESSENTIAL

OF

Almond.

Anise.

Bay. Bergamot.

Birch.

Cajuput.

Caraway.

Cardamom.

Cassia.

Celery.

Chamomile.

Cinnamon.

Citronella.

Clove.

Coriander.

Cubeb. Cumin.

Dill.

Eucalyptus.

Eugenol.

Fennel.

Geranium.

Ginger.

Gingergrass.

Hops.

Juniper Berry.

Lavender.

Lemon.

Lemongrass.

Limes.

Mace. Neroli.

Nutmeg.

Orange.

Orris.

Origanum. Palmarosa.

Parsley.

Patchouli.

Peach Kernel. Pennyroyal.

Peppermint.

Pimento.

Pine.

Rosemary.

Sandalwood.

Sassafras.

Spearmint.

Thyme.

Valerian.

Wintergreen.

Wormwood.

WRITE FOR SAMPLES AND PRICES TO

Stafford Allen & Sons, Ltd.,



COWPER STREET. FINSBURY. LONDON, E.C.

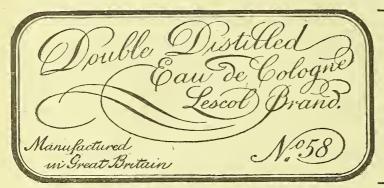


EAU DE COLOGNE.

Manufactured in Great Britain.

LESCOL BRAND No. 58.

FINEST VALUE IN COLOGNES ON THE MARKET.



Very acceptable and necessary

PRESENTS FOR THE SICK.

In 1 to 20-oz. bottles, and in bulk.
SHOWCARDS SUPPLIED.

Please write for our latest Price List-Illustrated by Colour Photography.

Finest Perfumery to suit all markets and requirements.

LINES FROM A 1d. TO A GUINEA.

THE LESCOL PERFUMERY CO.,

Lomond Grove, CAMBERWELL, LONDON, S.E.

'Phone-No. 810 Hop.

Telegrams-" VANILLIN, CAMBER, LONDON."

CARMINE

Guaranteed Pure Cochineal, and free from any added matter or adulteration.

OTTO OF ROSE

Guaranteed Absolutely Pure under Analysis by Mr. Ernest J. Parry, B.Sc., F.I.C., F.C.S.

Also Headquarters for

Gelatines (leaf, sheet, photographic and powder), Glues, Olive & Nut Oils, Marseilles and Pure Olive Oil Soaps, Lavender Oil and Spike, Lemon and Orange, Liquorice (block and stick), Fine Colours, etc.

Telegrams: "Forbrodona, Finsquare, London." Tel. Nos., London Wall 6076.

FORWOOD BROS. & DONALDSON L. ROPEMAKER ST., FINSBURY, LONDON, E.C.

Petroleum Jelly

White, Yellow, Amber, & Ruby Red, for all Pharmaceutical and Veterinary purposes.



MEADE-KING, ROBINSON & CO. LIVERPOOL - - MANCHESTER

The Standard of Purity.

MANUFACTURERS & IMPORTERS OF

Petroleum Jellies

WHITE, YELLOW, ORANGE, AMBER, LEMON, RED, GREEN, ETC.

Liquid Paraffin

ODOURLESS :: TASTELESS :: COLOURLESS

White & coloured Oils

YELLOW, GREEN, RED. ETC.

WHOLESALE ONLY-

STERN'S

51 ROYAL LONDON HOUSE, FINSBURY SQ., LONDON, E.C. 108 HOPE STREET, GLASGOW.

Methylated Spirit White free y

White in colour & exceptionally free from unpleasantness.

Spirits of Wine

All strengths. Absolute Alcohol.
Duty paid.
Duty free for Export and
Scientific purposes.
Try the "Extra Rectified"
for your Perfumery.

Absolute Alcohol

Home and Export.

Chemists' Wines

Sherry, Port, Coca,
Malt and Meat, Orange.
Orange and Quinine,
Maintains its brilliancy permanently.
Champagnes.

WHITE CROSS SCOTCH WHISKY.

WHITE CROSS BRANDY.

Write for Samples and Quotations.

Jas. Burrough Ltd.

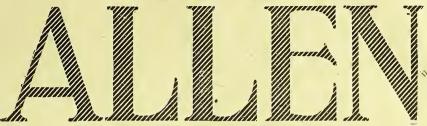
D1 Cale Distillery Hutton Road LAMBETH S.E.

Telegrams: "BURROCALE, LAMB, LONDON"

Telephone: HOP 3436 (3 lines),

Established at Chelsea 1820.

STAFFORD



SONS.

Manufacturers and Exporters of

SOLID, LIQUID AND POWDERED

POWDERED

DRUGS & SPICES

THYMOL IRON & QUININE CITRATE PODOPHYLLIN RESIN **CAPSICIN GINGERIN** SCAMMONY RESIN

FOR SAMPLES AND QUOTATIONS.

Flower Farms & Distillery: Long Melford, Suffolk.

Drug Mills & Factory: Finsbury, London.

Telegrams: "Persic, Finsquare, London." Telephone: London Wall 6556 (3 lines).

See also page 45.

The Best Paying 1d. Line is

FOR CHAPPED HANDS.

			SALE						d.	
1 gross	"Softo"	with	4 doz.	bonus	•	-	-	7	0	
½ gross	,,	72	1½ doz	. ,,	_	-		3	9	
3 doz.	,,		1 doz.			_	-	2	3	
A Cham	.ic4i4.c.	, 44 DI					10			

A Chemist writes: "Please send our goods immediately, as the 1 doz. 'Softo' was cleared in a day."

The SOFTO Manufacturing Co. 33 Edgware Road, Park Lane, W.

"Railox" Nit and Vermin Destroyer.

Clean and invisible in use; no grease. Price 2d. & 6d. per packet.

Extracts from some of the many letters we have received: CORNWALL.—"Railox' is the best I have used," SHIPSEA, HULL.—"Delighted with the result."

SHOWS A GOOD PROFIT.

"Railox" Soldier's Wallet (speciality).

The Best Cleanest & Handlest Price 6d. each.

PR	ICE LIST.	6d. 1	ines 4/- doz.	
2d. 3 doz. 4/- lines 6 7/-	£1 £3-5	2½ % 5 %	0	for cash with rder. s carr. paid.

MILNER'S CHEMICAL CO., LIVERPOOL.

ROUGE PUFFS



ALL SIZES, each in envelope, if so required, manufactured, and prompt delivery given by

F. SCHUTZE & Co., Ld.

Black Bull Works, Caledonian Market LONDON, N.

FLOWER and VEGETABLE

IN PICTORIAL 1d. PACKETS.

New Special 3d. line, Vegetable Seeds only, for Allotment Trade.

There will be a large trade in Vegetable Seeds this year, and Chemists should take advantage of it

A1 MENTHOL SNUFF (in Oak Design Tin). P.A.T.A. 3½d., 2/1 doz.; 6 doz., 1/10; 1 gross, 20/6.

COLD CREAM (in Tubes). Quality 1, 3/-, 3/6 and 5/6 doz. In Bulk, 1/2 lb. Best Quality.
1, 2, 2/9, 3/3 and 4/9 , , , , , 9d. lb. "M" ,

TOILET LANOLINE (in Tubes). 2/9, 3/3 and 4/9 doz.

OATMEAL CREAM. 3/-, 3/6, and 5/6 doz.

FORMALIN AND MINT TOOTH PASTE. In Collapsible Tubes, each in a carton, 4/- doz.

THYMOL TOOTH PASTE.

WHITECROSS TOOTH POWDER (Two Sizes).

Small, 3/- doz. 3 doz. 29 6 doz. 2/6 1 gross 27/Large, 4/- , 3 , 3/9 6 , 3/6 1 , 39/This is a splendid selling line, having received the Certificate
of Merit from the Institute of Hygiene.

PRIMROSE TABLETS.

A very fast selling 1d. line for Winter, 8/- gross.

SPECIAL QUOTATIONS FOR QUANTITIES.

SHIRLEY BROTHERS, LIMITED, Whitecross Works, London, S.E.



A new and attractive line that is sure to enjoy good sales. A greaseless Cream that takes the odour out of perspiration. Daintily packed in opal jars. Ask your wholesaler.

The liquid hair remover (originally known as Decolene)

A new idea in depilatories. Simple and safe to use-effective in use. Pleasant and harmless. Invaluable during the vogue of the décolleté gown. Daintily packed. Ask your wholesaler.

TRADE TERMS

DINKIE:

Advertised, and min.
Retail Price
Trade 20/- doz.

DECOLTENE: Advertised, and min. Retail Price Trade 30/- doz.

Monthly Accounts nett. 5 % Cash with Order.

Carriage Paid on £1 lots. Particulars

ROBARTES

128 Jermyn Street, London, S.W. Telephone; Gerrard 3672



Satisfaction Guaranteed or Money back

Trade Mark

ENGLAND'S

BEAUTIFUL WOMEN ALL

PRAISE "HARLENE"

PREPARATIONS.



BRITISH STANDARD
TOILET PRODUCTS
OF WORLD-WIDE
POPULARITY.

[Photo: Rita Martin

MISS GINA PALERME
The popular and talented French actress who praises the virtues of "Harlene" Hai. Drill,

MILLIONS OF GIFTS

The vigorous and world-wide "Gift" Campaigns that are the outstanding feature of the advertising in connection with

"HARLENE" for the Hair ("Harlene" Hair-Drill)

"ASTOL" for Grey Hair

"CREMEX" SHAMPOO POWDERS

"ASTINE" VANISHING CREAM (for the Complexion)

"UZON" BRILLIANTINE

**ASTINOL " Aromatic Fluid Extract (Pine Baths at Home) and other of their well-known preparations issued from the house of EDWARDS HARLENE, LTD., have won adherents in every part of the British Empire. In spite of War conditions, these Publicity Campaigns have been as widely advertised as ever, with corresponding benefit to the retail trade. Reports prove that "Harlene" products are to-day still supreme in popularity, and we suggest that you should keep complete stocks in order to meet the large public demand. There are certainly no more popular selling lines than those mentioned—a popularity gained by the policy of providing sound value at all times.

Please Address all Correspondence to-

EDWARDS' HARLENE, Ltd.

20, 22, 24 & 26 Lamb's Conduit Street, LONDON, W.C.

Laurence Pountney Lane, City, E.C. A.D. 1820.

Devon Wharf, Mile End, E. A.D. 1905.

Devon Wharf and Bell Wharf, Mile End, E. A.D. 1911.

The H.S.M. Alcohol Recovery Still

The best and most convenient apparatus for the recovery of spirit from Tincture Marcs, Essence Residues, &c. Recovers the whole of the spirit at full strength. Now used by all the leading Wholesale Drug Houses and Mineral Water Essence Makers, &c.

The apparatus is made in several sizes suitable for either Retail Chemists, Wholesale Druggists, or the largest manufacturers. Saves its cost in a few months. Booklet and full particulars on application.

We are Special Manufacturers of HAIR DYES (Laurence's) STANDARDISED GALENICALS AMYLIC ALCOHOL (for MilkAnalysis) BUTYRIC ETHER HYDROCYANIC ACID, B.P. COD LIVER OIL EMULSION SODIUM SULPHATE RECRYST. (Pea and feathery Crystals) CAFFEIN CITRATE PETROLEUM EMULSION SPIRIT OF SWEET NITRE DURAPEDE (for the Feet) AROMATIC SPIRIT OF AMMONIA CASCARA PREPARATIONS TEREBENE CONCENTRATED LIQUORS FOR TINCTURES.INFUSIONS & SYRUPS MERCURIAL OINTMENT NITROUS ELIXIR BEEF AND MALT WINE LIQUID ANNATTO VITALACTINE (the ideal tonic casein food-Sanatogen substitute) ARKOL (a special petroleum laxative oil of the highest purity)

ARKOLAX (a pleasantly flavoured

STANDARDISED PREPARATIONS

laxative confection)

BUTTER COLOUR

PHYSIOLOGICALLY

AN ALL-BRITISH DISINFECTANT.



Of high germicidal efficiency for Surgical and general uses. Forms a

clear solution with water, is non-corrosive and far less poisonous than carbolic acid. PRICES.

٠.	4 oz.	8 oz.		32 oz. Bo	ts. 1 ga	. Tins	
	each.	each.	e ich.				
Retail	7 d.	1/-	1/9	3/-	11/-	eacl	h.
	doz.	doz.	doz.	doz.			
Trade	4/6	7/6	12/6	22/-	7/-	••	net
	- / -				,	77	

DERMOLINE

Glycerine Substitute.

Pine Catarrh Inhalant New Speciality for Winter Sale.

TWO NEW HAIR PREPARATIONS ARE "Butilox" Hair Tonic

for strengthening the Hair, stimulating its growth, and rendering it soft, supple and lustrous, AND

"Butilox" Hair Renovator for preventing greyness, and gradually restoring the

LITERATURE AND PRICES ON APPLICATION.

We are Special Manufacturers of

GRANULAR EFFERVESCENT PRE-**PARATIONS**

FIELD'S SELECT PREPARATIONS

CHEMICAL SYRUPS ESSENCES AND COLOURS FOR

CONFECTIONERY

FRUIT ESSENCES MILLED OINTMENTS

POWDERS (Ground in our own Mills)

FIELD'S PERFECTED SYRUP OF FIGS

VETERINARY SPICES

COMPOUND LIQUORICE POWDER

GLYCERINE SUPPOSITORIES

(Special torpedo shape) GELATINE-COATED HORSE-BALLS CASCARLAX (a palatable and active fluid Cascara)

LAURENCE'S HAIR DYES. best and most reliable.

&c. &c.

Our Illustrated List Packed Specialties,

Pharmaceutical and Toilet Preparations, put up for retail sale with customer's name and address, we shall be pleased to forward on application.

C. R. HARKER, STAGG & MORGAN, LTD.

Wholesale and Export Druggists, Distillers of Essential Oils.

> DEVON WHARF and BELL WHARF,



Manufacturing and Analytical Chemists,

Emmott Street, MILE END. LONDON.

Telegraphic and Cable Address: "EDULCINE, EDO, LONDON."

Telephone Nos.: 215 EAST, 1025 EAST.

Codes:
A B C, 5th EDITION, and PRIVATE.

Laurence's HAIR DYES

(ONE SOLUTION)

ARE STILL THE BEST AND MOST RELIABLE IN THE WORLD.



Facsimile of Package.

-and, undisturbed by the abnormal conditions prevailing, continue their successful career of increasing popularity and expanding business. Especially gratifying has been the demand from the Colonies and allied and neutral countries for a preparation to replace that of enemy origin unobtainable since the War. Laurence's Hair Dyes have responded to the call and stepped into the breach. Our claim for them of "once used, always



Facsimile of Showcard.

used" has so far been fully upheld, and we do not fear the future.

Particulars of our popular bonus terms, P A.T.A. prices, etc., will be found below.

Purchasers of not less than S x dozen bottles, which may be assorted as to sizes and colours, in addition to our Bonus of eight bottles, will receiv free of charge materials for creating a striking and attractive window display.

The net profit obtainable by the sale of six dozen bottles and bonus (1/6 size) is £3 8s. 8d.

Prices and profits protected by P. A. T. A.

Size,	Minimum retail.	Minimum	wholesale.
1/-	1/-	7/6	-
1/6	1/6	9/-	per doz.
2/6	2/3	15/-	discount.
3/6	3/3	21/-	-

SPECIAL BONUS.

Buyers of 3 doz. bottles receive 3 bottles gratis (may be assorted any size).

Do. 6 doz. do. 8 bottles gratis.

Do. 12 doz. do. 18 bottles gratis.

Equivalent in the case of the size in most general demand—viz., 1/6 size, to 4/6, 12/—

and 27/— respectively.

You cannot do better than to let us put a window display order in hand for you. Please ask at the same time for full particulars of the Prizes we are offering for the best Displays made during the year.

Sole Proprietors:

C. R. HARKER, STAGG & MORGAN

(Limited),

DEVON WHARF, Emmott St., Mile End, LONDON, E.

SPECIAL NOTICE.

In consequence of the increase in the cost of raw materials and other difficulties arising out of the war, we have been reluctantly compelled to raise the prices of

EUCRYL TOOTH POWDER

AND

EUCRYL TOOTH PASTE

and from January 1, 1917, the minimum retail prices will be 7d. and 1/2, and to the trade 4/8 and 9/4 dozen. This increase will be borne by the public and not by you, as in order to ensure you the pre-war

PROFIT OF 100%

we shall **double** the bonus, as shown by the following table:—

BUYING PRICE.

SELLING PRICE.

6 doz. 7d. tins or tubes at 4/8 £1.8.0 8 doz. 7d. tins or tubes £2.16.0 2 doz. 7d. , , free of charge

Profit £1.8.0 = 100 %

6 doz. 1/2 tins or tubes at 9/4 £2.16.0 | 8 doz. 1/2 tins or tubes £5.12.0 2 doz. 1/2 ,, , free of charge

Profit £2.16.0 = 100%

EUCRYL Limited, 61-63 Lant St., BOROUGH, S.E.

"VASELINE"

RELIABILITY

"VASELINE" when used in Ointments contains more of the desired elements necessary for a universal base than any other known substance. It has emollient, antiseptic, healing and protective qualities in itself, is not easily acted on by chemicals, and, where properly protected from air and light, does not change. Also, when incorporated with other medicaments, they are not injured by the action of the base. These conditions have long been recognised by the leading Physicians, Surgeons and Pharmacists throughout the world. Animal and vegetable fats, on the other hand, are subject to change, forming various compounds, which destroy the end for which they were intended.

"Vaseline" is the Registered Trade Mark of the

CHESEBROUGH MANUFACTURING

COMPANY (Consolidated)

42 Holborn Viaduct, London, E.C.

Complete Price List of all the "Vaseline" Preparations will be sent post free on application

SOLPORT BROTHERS

(Established 1857),

LIMITED.

184 to 190 Goswell Road, London, E.C.

Telephone: 4363 CENTRAL.

Telegrams: "SOLPORT, BARB, LONDON."

MANUFACTURERS (Wholesale and Export) of

Druggists' Sundries & Toilet Accessories

Corn and Bunion Plasters Corn Shields Corn Silk **Bath Cloves Bath Cauntlets Massage Gloves**

Massage Cauntlets Loofah Gloves and Straps

Bath Straps Horsehair Friction Cloves

Horsehair Friction Straps

"Frictor" Cloves and Straps **Bath Pads**

Washing Squares Bath Mats

Knitted Cotton Friction Cloves Knitted Woollen Friction Gloves

Sleeping Gloves and Socks Loofah Socks

Hair Socks

Court Plaster

Cold Beater's Skin

Oiled Silk

Cutta Percha Tissue

Respirators

Suspensory Bandages

"Portia" Baby Balances

Yeo's Inhalers

Loofahs

Finger Stalls, Chamois

Finger Stalls, Silk

Finger Stalls, Stockingette

Finger Stalls, Kid

Finger Stalls, Cotton

Finger Stalls, Poplin

Finger Stalls, Paroubek's

" Foldo

Finger Stalls, "Auto"

Finger Stalls, Elastic Thread

Loofah Sandals

Mouchesrides

Sponge Felt

Impermeable Piline

Wrist Straps

Paroubek's Wrist Straps

Chest Protectors, Scarlet Felt

Chest Protectors, Grey Felt

Chest Protectors, Stockingette Chest Protectors.

Chamois Lined

Chest Protectors, Pine Felt Chest Protectors, Furfelt

Chamois-lined Vests

Body Belts

Hot Water Bottle Covers

Throat Compresses

Turkish Towels

Powder Puffs

Rouge Puffs

Puff Boxes and Bowls

Vanity Boxes and Mirrors

Nail Polishers

Nail Polishing Stones

Nail Files

Manicure Appliances

Powder Books

Face Chamois

Complexion Cloves

Eyeshades, Silk and Celluloid

Reading Shades

Vaccination Shields and Pads

Nursing Aprons

Filter Bags

Sponge Bags and Wraps

Bathing Caps

Toilet Holdalls

Safety Pins

Combs

Toothpicks

Nail and Nurses' Scissors

Tweezers

Indiarubber Sponges

Menthois

Siringes

Chamois Leathers

Sponge Baskets

Shaving Brushes

Tooth Brushes

Nail Brushes

Hair Brushes

Dr. Dale's Dentos

"Portia" Trench Mirrors

The above goods and many others in which we specialise, - are quoted in our current Price List, fully illustrated. -

If you are not on our list to receive this Catalogue regularly, please write to us.

PHENATE OF SODA SOLUTION

Sol. Sodæ Phenatis (Woolley).

Invaluable as a Mouth Wash and for allaying tenderness of the gums after Teeth Extraction.

Antiseptic and Astringent.

In Stoppered Amber Glass Bottles, Quarter-Pint, Half-Pint, Pint, Quart, and Half-Gallon. Retail, 1s., 1s. 9d., 3s., 5s. 6d., and 10s. 6d. each.

"PHENODA" TOOTH PASTE

A FRAGRANT ANTISEPTIC DENTIFRICE.



"An excellent Tooth Paste, cleansing and very agreeable to use."—General Practitioner.

"As a Tooth Cleaner thoroughly trustworthy."

Dental Surgeon.

LONDON WHOLESALE AGENTS-

W. EDWARDS & SON, F. NEWBERY & SONS, Ltd., BARCLAY & SONS, Ltd., BUTLER & CRISPE, SANGERS, MAY, ROBERTS & CO., Ltd.

Examined and certified by the Incorporated Institute of Hygiene.

A TOILET AND NURSERY REQUISITE



for Tender Feet, Skin Roughness, Chafes, Irritation from Sunburn, Heated Rooms, Cold Winds, &c.

"We have tried it extensively, and found it most useful."—Nurses' Journal.

"The best form of Dusting Powder for Nursery and Toilet use."—Medical Annual.

"An improvement on the old-fashioned Violet Powder."

British Medical Journal.

"Fragrant, soothing, cleanly."—The Queen.

White, Pink, or Cream.
Packets, 6d. Boxes, I/-, I/9, 3/-. Larger Bottles, 5/-.

JAMES WOOLLEY, SONS & CO., LTD.,

WHOLESALE AND EXPORT DRUGGISTS.

MANCHESTER.

Indents through British Shippers. A powerful antiseptic and deodorant.

PETAL DUSTREGD.

The Great Floral Air Purifier, and the sweetest & most lasting of all Natural Flower Perfumes

As supplied to the HOSPITALS and HOSPITAL SHIPS, and the SERBIAN RED CROSS SALONIQUE.

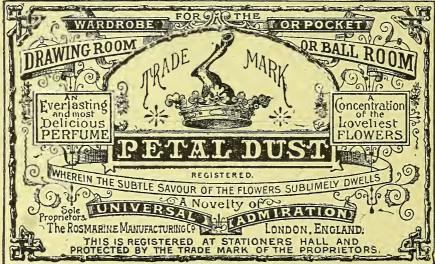
USED BY HER MAJESTY QUEEN ALEXANDRA

AWARDS.

Gold Medal, 1890.

Gold Medal, Turin Exhibition, 1911.

Highest Awards wherever Exhibited.



AWARDS.

Two
Gold Medals
Awarded
Queensland
Exhibition
1897.

Bronze Medal, 1888.

Gold Medal, 1891.

Commands the largest sale of any Dried Perfume in the World.

UNIQUE IN ITS COMBINATION, IT IS THE FAVOURITE OF ALL CLASSES.

Once shown, creates its own Demand.

Retails in England, in packets 3d. and 6d. each.

A supply of attractive Advertising Matter will be sent on request.

For orders of five gross and upwards of each size, customer's name and address can be printed at foot of packets, also on circulars.

SOLE PROPRIETORS-

THE ROSMARINE MANUFACTURING COY, LONDON, S.E., ENGLAND.

Sales and yet more Sales!

Chemists everywhere can secure more of the passing trade, and can increase their output of their own specialities, if they will invite passers-by into their pharmacies by displaying—and thus advertising their ability to supply—

Euthymol TOOTH PASTE

the most popular, universally appreciated
British-made Dentifrice available.

Passing trade means more to-day than it has ever meant before. The soldiers in billets or from adjacent camps, Active Service men home on leave, visitors, war workers of all kinds, and overworked business people on much-needed spells of rest, are all worth catering for.

Everybody needs a dentifrice, so push the brand that gives your customer the greatest satisfaction and secures for you the best profit.

PARKE, DAVIS & CO. 50-54 Beak Street, LONDON, W.

Laboratories: Hounslow, Middlesex.

extensively

advertised

ARE YOU AWARE

that large profits are being made out of

TOZANA

HAIR FOOD

"Nourishes the Roots." A new and wonderful discovery for the rejuvenation and preservation of the hair, which, in the gentlemen's strength, is also an

EXCELLENT FIXATIVE DRESSING.

Prepared in two strengths—"Ladies'" & "Gentlemen's." Retailed at 2/-, 3/6 and 5/- per bottle; Trial size, 1/-. For trade prices inquire of your wholesaler, or direct to the

TOZANA PERFUMERY Co.Ld. TOZANA HOUSE,

F. M. RUDD, Bronson,

> M!CHIGAN, u.s.a

GENUINE AMERICAN PEPPERMINT OIL

"Columbia" Natural
"Diamond White"
Re-distilled.

Finest qualities for Druggists, Distillers and Confectioners.

Sole Consignees in United Kingdom-R. W. GREEFF & CO.

Thames House,

Queen St. Place, LONDON, E.C.

RANDALL& SON,

Wholesale and Export Druggists, OUTHAMPTON

Best Quality Only.



Apply for Prices to largest makers in U.K.

PRESTON'S LIVERPOOL DISTILLERY CO. LO.

Bankhall Distillery, Sandhills, Liverpool.

Office: 4 INDIA BUILDINGS,



Agents for AUSTRALIA: R. C. TURNLEY & SONS, Melbourne.
Do. CANADA: PALMERS, Ltd., Montreal.

Agents for BRAZIL: WILSON, SONS & CO., Ltd., Sao Paulo. Do. CHINA: F. W. SMITH & CO., Chefoo.

BEETHAM'S

Is the Skin Tonic for 1917.

It is effective.

It is attractive.

It is price-protected. It is well-advertised. It sells readily. It bears a good profit.

HAVE YOU OUR SHOWCARD?

BEETHAM'S NEW SHOWCARD.—One of the prettiest lithographic productions which have come to us lately is the Larcla beauty here depicted. The card measures 24 in, by 18 in., and is all roses, even the word "Larcla" being formed from prickly rose-stems. The fair rose-gatherer has rosy cheeks, and she and the setting make so bright a picture that no pharmacy will be complete without it. Copies can be obtained from Messrs. M. Beetham & Son, Cheltenham, the originators of Glycerine-and-Cucumber and Larola.

This handsome Showcard, in 14 colours (size 24 by 17) can be had by any chemist who will give it a good place in his pharmacy.

BEETHAM & SON. Cheitenham

LOFTHOUSE & SALTMER, Ltd.

Wholesale & Export Drug Merchants. - Manufacturing Chemists -

HULL

NVITE the Trade to take up the following valuable P A.T.A. Protected Lines, bearing a large Protected Retail Profit, which sell freely and are well known and valued by the Public in many parts of the country.

P.A.T.A. Protected Dozen Net. 5/-*LOSALL'S SALT (well advertised), tins 120. 10/bottles in 1/6 12/-Lessil's Sait sells so well, surely it must pay Pharmacists to stock such a large profit-bearing protected line.

LOSALL'S COMPOUND SULPHUR SOAP.

A valuable emollient medicated skin soap, \$1/6 especially suitable for use in Eczema

12/-

Chemists requiring effective advertising matter for Losall's Salt, &c., will, on application direct to Lofthouse & Saltmer, receive a liberal supply of Dummies, Showcards, Window Slips, Price Tickets, &c., Carriage Paid, whether or no they have an account open with the Firm.

ALFRED BISHOP, LIMITED,

Manufacturing Chemists (Est. 1857),

CALL THE ATTENTION OF PHARMACISTS TO THE FOLLOWING

Important Pharmaceutical Specialities

HYDROPYRIN

(LITHIUM ACETYL-SALICYLATE).

KALMOPYRIN

(CALCIUM ACETYL-SALICYLATE).

These two soluble salts of Acetyl-salicylic Acid offer numerous advantages over the insoluble acid. They lend themselves to all forms of dispensing, and need never be prescribed in tablets. Owing to their ready solubility they are much more prompt and definite in action than the inscluble acid, and produce none of the unpleasant after-effects caused by the latter, especially the impure brands now so often met.

PIPERAZINE CITRATE

(REGD.)

(REGD.)

is a definite, stable salt of Piperazine, constant at all temperatures and freely soluble. It is made only by us under patent.

PIPERAZINE, PURE

We also supply Piperazine base in large or small quantities for manufacturers or dispensers.

Para-Sulphamine Benzoate.

(REGD.)

A tasteless soluble stable salt of the nauseous liquid base. It is a powerful uric acid solvent, especially in the form of

CALCUSOL - -

or Granular Effervescent Piperidine Para-Sulphamine Benzoate with Potash Citrate.

The above Salts are manufactured only by us under our own patents.

CITRATE OF MAGNESIA

The Original, invented by us in 1857, and the Standard of Quality ever since.

BISHOP'S CAFFEINE

A Granular Effervescent preparation containing one grain Caffeine Alkaloid to the drachm. It is noted for its promptness and efficacy in relieving all forms of headache, as well as for the full volume of effervescence and the palatability of the bright sparkling draught which it forms. It is also a valuable restorative tonic, and harmless stimulant.

BISHOP'S GOUT VARALETTES

are the most widely used and most successful uric acid selvents, and are regularly prescribed by medical men.

BISHOP'S KISSINGEN & VICHY

VARALETTES

provide a safe and successful means of reducing weight without dieting, exercise or other restrictions.

BISHOP'S NATURAL FRUIT SALINE

is an exceptionally well-flavoured preparation, making a most refreshing beverage. It cools and purifies the blood, clears the liver, and acts as a mild aperient.

Fuller Particulars, Prices, etc., from the Sole Manufacturers—

ALFRED BISHOP, LIMITED, 48 Spelman St., LONDON, N.E.





(Registered Trade Mark)

SYNTHETIC FLORAL OTTOS.

TRÉFLE INCARNAT NB. EGYPTIAN BOUQUET. PERSIAN BOUQUET.

Oriental type.

DÉLICE OTTO. PARISIAN BOUQUET.

Light French

MIMOSA "N." HELIOTROPE "N." JASMIN.

NARCISSUS.

etc., etc.

OIL of NEROLI (Synth) "T."

and

OTTO de ROSE (Synth) "T."

are

Perfect reproductions of the finest Natural Oils.

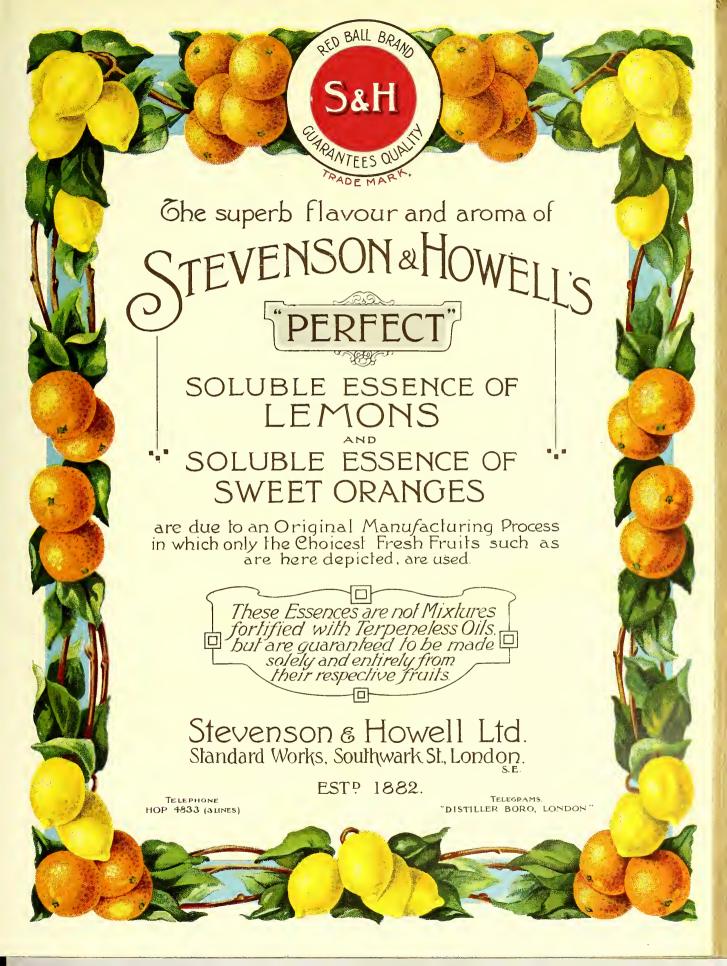
INQUIRIES

from Manufacturers of Perfumery and Toilet Preparations are specially invited. We shall be pleased to advise upon Technical details and to suggest suitable perfuming ingredients for proprietary lines.

STEVENSON & HOWELL,

STANDARD WORKS. SOUTHWARK STREET. LONDON,

S.E.



pplement to THE CHEMIST & DRUGGIST, January 27, 1917.



(TRADE MARK)

ORANGE SQUASH)

A DELICIOUS
FRUIT BEVERAGE

Prepared entirely from selected oranges

Drinks exactly like fresh orange juice squeezed on to sugar.

MADE ONLY FROM

STEVENSON & HOWELL'S

RED BALL BRAND

PERFECT SOLUBLE ESSENCE OF SWEET ORANGES.

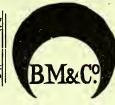
STEVENSON & HOWELL, Ltd.,

TANDADD WADD

Brunner, Mond & Co. Limited,

NORTHWICH, CHESHIRE.

... Crescent



Brand.

A PURE SUBSTITUTE

For Chalk, Whiting, Limestone, Marble, &c.

We strongly urge all Mineral Water Manufacturers not now using Bicarbonate of Soda, before committing themselves to Whiting for the coming Season, to try a 2-cwt. Bag of our Bicarbonate of Soda, which we shall be pleased to send carriage forward on receipt of Postal Order for 9s. 6d.

Mineral-Water BICARBONATE

SPECIALLY MADE FOR THE PRODUCTION OF CARBONIC ACID GAS FOR AERATED WATERS.

ADVANTAGES

NO alteration of Plant necessary.

Great Economy of Time and Labour is effected.

Great Cleanliness in Manufacturing is ensured.

The same Generator will yield THREE TIMES the amount of Carbonic Acid Gas per Charge.

The same quantity of Sulphuric Acid will yield TWICE THE AMOUNT of Carbonic Acid Gas.

There is NO SEDIMENT in the Residual Liquors, and consequently no Mud to deal with.

A Marketable Bye-Product (Glauber Salts) can, if desired, be obtained.

First-class Waters are produced.

BRUNNER, MOND & CO.



LIMITED, NORTHWICH.

INSTRUCTIONS FOR USING Bicarbonate of Soda in making Mineral Waters

PRODUCTION OF CARBONIC ACID GAS.

PROPORTIONS TO BE USED:

1 Cwt. Bicarbonate.

Minimum quantity of Water: 17 to 20 Gallons. 3½ Gallons (say 68 lbs.) Sulphuric Acid of 167 Twaddell. These quantities give about 58 lbs. Pure Carbonic Acid Gas.

THE METHOD OF CHARGING the Generator, and of running in the Acid, is exactly the same as when Whiting, Chalk, &c., are used; no agitation is required except at the very end of the charge. About 50% more bottles (or half as many again) will be charged than with the same weight of Whiting.

A Generator capable of holding 1 cwt. of Whiting, 36 gallons of Water and $6\frac{1}{4}$ gallons (1 cwt.) of Acid can be charged with 2 cwts. of Bicarb., 34 gallons of Water and $7\frac{1}{2}$ gallons ($1\frac{1}{4}$ cwt.) of Acid. This will yield **Three Times as much Carbonic Acid Gas** as is given by the Whiting process, and consequently three times as many bottles per charge—an immense advantage where space is limited and when business is brisk.

It will be seen from the proportions given above that only about two-fifths of the Acid and two-thirds of Bicarbonate (weight for weight, as compared with Whiting) are required to produce the same amount of Carbonic Acid Gas.

The proportion of Water can be varied according to circumstances. With the above proportions the liquor from the Generator (which liquor is always perfectly clear and free from sediment) will, if run into tubs or into crystallising pans, crystallise in about two hours at ordinary temperatures. The Crystals obtained are Glauber Salts, a readily saleable article, in place of the mud from Whiting, so disagreeable to handle and so difficult to get rid of.

When the minimum quantity of Water is used, the liquor should not be allowed to stand in the Generator after work is finished, or the Glauber Salts will crystallise in it and cause delay by having to be dissolved out with water, or otherwise removed, before a fresh charge can be inserted. If it is not wished to recover the Glauber Salts, fill up the Generator with water after the charge is worked off, or work with more water in the original charge.

If the residual liquors are disposed of by pouring them down a drain, it is advisable first to dilute them with water, or to pour water down the drain, either at the same time as or immediately after, the liquors, in order to prevent a possible blockage of the drain-pipe by crystallisation.

Mineral Water Manufacturers who use the above process might, with advantage, send their Glauber Salts to the firms who supply them with their Acid.

BRUNNER, MOND & CO. LIMITED,

Northwich, England.

POSTLIP MILLS No. 633.

Pure English Filtering Papers.



SPECIALLY MANUFACTURED TO REPLACE THE BEST FOREIGN MAKES UNOBTAINABLE DURING THE WAR.

Appended is a copy of the Report from The National Physical Laboratory, Teddington, to whom samples were submitted for examination and comparison with the best Foreign Papers.

PLEASE ORDER THROUGH YOUR WHOLESALE HOUSE.

COPY OF REPORT

On six samples of Filter Paper sent in by Messrs. Evans, Adlard & Co., Ltd.

Five samples of white filter paper in sheets and cut circles were sent, and one sample of thin grey filtering paper in cut circles. The first five were of various kinds, suitable for different purposes. The following tests have been undertaken, determination of Ash and of its constancy for each kind of paper, rate of filtration, and the ability to retain very finely divided precipitates in those cases where the description of the paper indicated that it was designed for this purpose.

The following is a statement of the purposes for which the various grades of paper are intended.

- 1. No. 633a. Medium weight and suitable for rapid filtration.
- 2. No. 633b. Heavier weight.
- 3. No. 633c. Very similar to the above.
- 4. No. 633d. \ Both suitable for retaining finely divided precipitates.
- 5. No. 633e. No. 633e is a heavier paper, filtering more rapidly than 633d.

Determination of Ash.

A sheet of each paper measuring $24\frac{1}{2}'' \times 24\frac{1}{2}''$ was divided into two equal portions and carefully ignited. The results obtained in each case indicate that all the papers are very uniform in mineral content. The figures obtained for the ash of a sheet $(24\frac{1}{2}'' \times 24\frac{1}{2}'')$ for each kind of paper are given in the table below.

		Ash per sheet $(24\frac{11}{2}) \times 24\frac{1}{2}$	
No. 633a.	0.0518 gms.	No. 633d.	0.0548 gms.
No. 633b.	0.0564,	No. 633e.	0.0934,
No. 633c.	0.0524		

The corresponding figures for the sizes of filter papers in most frequent use are given in the following table.

SIZE.			ASH II	N GMS.		
Diameter in inches.	No. 633A.	No. 623в.	No. 633c.	No. 633D.	No. 633E.	Thin Grey
$2\frac{1}{4}$	0.00034	0.00037	0.00035	0.00036	0.00062	0.00103
23	0.00051	0.00056	0.00052	0.00054	0.00092	0.00154
$3\frac{1}{2}$	0.00083	0.00090	0.00084	0.00087	0.00149	0.00250
$4\frac{1}{4}$	0.00122	0.00133	0.00124	0.00129	0.00221	0.00368
5	0.00169	0.00184	0.00171	0.00179	0.00305	0.00510

Rate of Filtration.

The results of this test are very largely dependent on the method employed, and rates of filtration published by makers without stating the method are, therefore, useless for comparison. It was therefore considered advisable to obtain samples of a well-known make so that by using the same definite conditions for each kind of paper, a comparison with an article of known quality could be obtained.

The method adopted was to use a smooth funnel of 60° fitted with an accurately folded paper of 5" diameter. Water maintained at constant level, by an automatic arrangement, was allowed to flow through during the period of five minutes; by making a series of observations, an approximate figure for the rate of flow could be obtained. The figures were subject to somewhat wide variations, but as the conditions were the same for the papers submitted for test and for those of a similar kind of a well-known make, the results can be regarded as comparable.

The following figures were obtained.

5" paper in 5 minutes.	another maker.
290 c.c. 390 c.c. 460 c.c. 200 c.c.	240 c. c. 280 c. c. 460 c. c. 140 c. c.
	390 c.c. 460 c.c.

Notes on the rates of Filtration.

No. 633b. The rates with this paper were particularly constant for both 633b. and the comparison paper.

No. 633d. The papers used with this grade were of 11 cm. as this was the largest size obtainable in the comparison paper of similar grade.

No. 633e. The rates with this paper were very variable in both cases but it is undoubtedly as rapid as the comparison paper.

Ability to retain fine precipitates.

A series of beakers containing equal volumes of a dilute sulphuric acid solution were taken, the contents raised to the boiling point, treated with barium chloride solution and after rapidly cooling filtered through papers of Nos. 633d. and 633e. and the corresponding grades of comparison paper. The filtrates were in each case perfectly clear and remained so on washing the precipitates remaining on the filter papers.

Another and more drastic test was carried out as follows:

I Gm. quantities of an alloy containing 82% tin and 10% antimony were treated with nitric acid evaporated to dryness and then treated with 100 c.c. of 10% nitric acid, and boiled. Without allowing the turbid solutions to settle, they were immediately poured into funnels fitted with the moistened papers. When the solutions had all passed through, the precipitates were washed. It was noted that papers Nos. 633d, and 633e, gave very slightly opalescent solutions, but the amount passed was of such small proportions that on long continued standing no precipitate would settle.

In only one case was an absolutely clear filtrate obtained, viz., in the case of a comparison paper similar to 633d.

Speaking generally, no perceptible difference could be observed between the papers under test and those with which they were compared in their behaviour towards the solution containing one of the most difficult substances to filter met with in analytical practice. The amount of the oxides of tin and antimony so passed could be regarded as of no practical importance.

No. 633a. was examined for chlorides but none could be detected. All the papers examined compare very favourably with those of similar characters with which they have been compared, and in most particulars, surpass them.

The amount of ash is approximately half that contained in the comparison papers.

Conclusion.

The papers submitted appear to answer very fully the description indicated by the makers and to be suitable for all purposes of filtration where the use of a paper whose ash-content has been lowered by extraction with Hydrochloric and Hydrofluoric acids is not regarded as essential.

December 15th, 1914.

R. T. GLAZEBROOK,

Director.

SUPPLEMENT TO REPORT ON FILTER PAPERS SUBMITTED BY MESSRS. EVANS, ADLARD & Co., Ltd.

The weights of ash for the different sizes of papers, not included in our previous report, are given in the appended table.

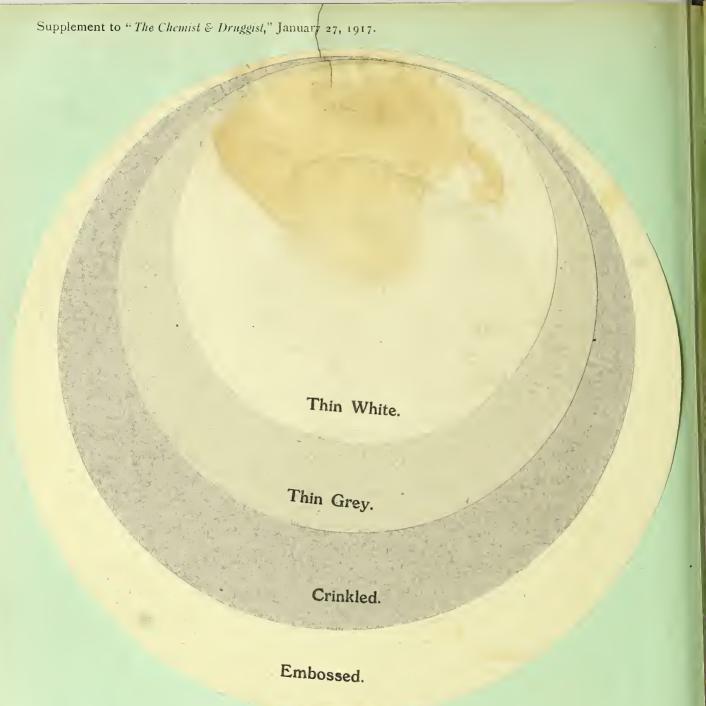
TABLE.

Diameter in	No. 633A.	No. 633в.	No. 633c.	No. 633D.	No. 633E.	Grev.
inches.	Ash.	Ash.	Ash.	Ash.	Ash,	Ash.
3	0.00061	0.00066	0.00062	0.00064	0.00109	0.00183
$3\frac{1}{4}$	0.00071	0.00078	0.00072	0.00076	0.00129	0.00215
$3\frac{3}{4}$	0.00095	0.00104	0.00096	0.00101	0.00172	0.00263
94 4 12 5 12	0.00136	0.00148	0.00136	0.00144	0.00244	0.00412
$5\frac{1}{2}$	0.00204	0.00220	0.00204	0.00216	0.00368	0.00616
$\frac{6}{7}$	0.00243	0.00266	0.00245	0.00257	0.00439	0.00735
	0.0033	0.00360	0.0034	0.0035	0.0060	0.01020
$egin{array}{cccccccccccccccccccccccccccccccccccc$	0.0035	0.0039	0.0036	0.0037	0.0064	0.01070
$7\frac{1}{2}$	0.0038	0.0042	0.0038	0.0040	0.0069	0.0115
8	0.0043	0.0047	0.0044	0.0045	0.0079	0.0131
9	0.0055	0.0060	0.0055	0.0058	0.0099	0.0165
$9\frac{1}{2}$	00061	0.0067	0.0062	0.0065	0.0110	0.0184
10	00067	0.0074	0.0069	0.0072	0.0122	0.0204
11	00082	0.0089	0.0083	0.0087	0.0148	0.0244
12	00097	0.0104	0.0098	0.0103	0.0176	0.0294
$12\frac{1}{2}$	00106	0.0115	0.0107	0.0112	0.0191	0.0319
13	00115	0.0125	0.0116	0.0121	0.0207	0.0345
$13\frac{1}{2}$	00123	0.0134	0.0125	0.0131	0 0233	0.0372
$15\frac{1}{2}$	00163	0.0177	0.0165	0.0173	0.0294	0.0490
$17\frac{1}{2}$	00207	0.0226	0.0210	0.0219	0.0374	0.0626
18	00219	0.0239	0.0222	0.0232	0.0396	0.0662
20	00271	0.0295	0.0274	0.0287	0.0488	0.0817
3		Company of the Company				1

December 22nd 1914.

R. T. GLAZEBROOK,

Director



The Best English Made Filterings, Chemically Pure. Stocked in all sized circles from 2 to 22 inches.



These Papers can also be obtained in reams and on rolls.

GIVE THEM A TRIAL.

Established in the Reign of King William the Fourth



chester

TELEPHONE: 7665 & 7666. CITY

REGD OFFICE: 4, EXCHANGE STREET.

TELEGRAMS: MIDGLEY, CHEMIST, MANCHESTER.

It is-difficult

to describe with both adequacy and brevity the various individual selling points associated with each of our new Toilet Soaps, but following on our general remarks a week or two since we endeavour here to set forth some outstanding features.



ROSE LEAF SOAP.

Trebly milled and perfumed with a perrect representation of the Marechale Neil Rose. 4-0z. tablets in gold and shaded cerise wrappers and box. Large and small showcards supplied. Sells at 23. 6d. per box or 10d. tablet.



MIDCLEY'S WHITE ROSE.

Our original soap for the toilet still retains its eld-fashioned design and excellence Pure, neutral, and non-irritating to the most sensitive skin. Can always be safely recommended. 6d. tablet, 1s. box of 3.



MIDGLEY'S COAL TAR.

Containing a substantial quantity of coal-tar. Always a good seller. 4d. tablet, 1s. box of 3.



SAVON ISIS DUMA.

Put up in true French style with all the richness of colour and design. The perfume conforms entirely with the general effect, and has the penetrating power of the modern French creations. 2s. 6d. per box of 3, 10d. tablet.



CELEBRATED BATHROOM SOAP.

Made from our best base and produced with a view to giving the maximum in weight, purity, and lastingness of perfume and to fill the enormous demand for a 6d. Bath Soap.



BASIC SOAP.

Perfectly neutral, eminently suitable for the skin of babes. 9d. tablet.



EUCALYPTOL.

The type of the medicated soaps. 6d. tablet.

The Principle of Bonus Schemes

when correctly applied should be the pryment of an extra consideration in return for an extra service. A bonus should not be given as part of, but supplementary to, working profit. Otherwise it may, and sometimes does, disguise an inadequate margin, which latter becomes evident only when the purpose for which it was instituted being accomplished, the bonus is discontinued.

Midgleys guarantee

the Pharmacist handling their Soaps a very fair margin; they assure their special agents a handsome profit, on a par with that expected from one's own counter specialities; and, in addition, give an important bonus as payment for window or counter space when a display is made.

Will you please write us to-day for price list and samp'es.



EAU DE COLOGNE SOAP.

A double-strength perfume is used. Largely in favour with the gentlewith the gentle-women of refined and sesthetic taste. 4-oz, tablets and presented in companion style to Rose Leaf, but in contrasting colour of shaded green. 2s. 6d. box.



WITCH HAZEL SOAP.

An ideal toilet soap with a delicate per-fume that lasts to the end. Rich lathering properties. In wedgwood-blue wrappers and box with lettering in relief. Sells at 4d. tablet or 1s. box of 3.



EMOLLIENT CREAM SOAP.

Benzoinated and gives a creamy lather with emollient effect. 4-oz. tablets richly packed. 10d. tablet, 2s. 6d. box

We are Seven.

We appoint and reserve one agent only in each town or district. We secure an 'own speciality" rate of

profit to him.

We recognise a dual responsibility with

him for actual sales, and to this end We provide

We provide

(a) Showcards for display.

(b) Medical literature for Medicos.

(c) Chatty leaflets for laity.

(d) Free samples both medicated and toilet.

We write personally with literature and samples to each medical man in district. referring to agent for supplies.

We take back for exchange any lines for which the demand in a particular district may be slow.

We retain an advertising reserve for meeting any special schemes of our clients for propagating sales in their particular district.

A. S. LLOYD'S EUXESIS

(THE GENUINE.)

For Shaving without Soap, Water or Brush,



A. S. LLOYD'S EUXESIS

FOR SHAVING Use of SOAP or Water.

DIRECTIONS FOR USB.

Unscrew the cap at the top, and gently press the broad end, always taking cree to do so from the bottom, by which the tube is rendered perfectly air-tight: when enough is obtained apply it to the beard either with a small soft brush or the finger, rubbing it a little; then apply the razor, and although but little of the Eurapeis be seen on the face, the beard will be removed with the greatest ease and comfort. It will be found very beneficial to wash before shaying. It is not intended to make a lather like scap. When the tube is not inceed, besure to screw on the cap again.

Sold in Collapsible Tuber, at 1s. 6d. and 3s. Sold in Collapsible Tubes, at 1s. 6d. and 3s. By the Original & Sole Manufacturer & Proprieto



Sold by all Perfumers and Chemists throughout the World.

R. HOVENDEN & SONS having purchased, under an administration suit, the Business of the late A. S. LLOYD. with the Receipt, Trade-mark, and Goodwill of the celebrated Euxesis, the Trade are cautioned that the original and genuine Euxesis is now manufactured at our Factory ONLY and may be obtained at either of our Warehouses at the following prices:

10/- per dozen; 9/9 by the 6 dozen. Retails at 1/6 the Tube; 3/- size to order.

NOTICE.—THE GENUINE A. S. LLOYD'S EUXESIS bears a label printed in BLACK only on a Yellow ground, with our Trade Mark at the bottom, as Illustration.

Proprietors: R. HOVENDEN & SONS, LTD. LONDON : 29-33 Berners Street, W. ; and 89-95 City Road, E.C.

FEATHEREDGE RUBBER **SPONGES**

THOROUGHLY SANITARY AND DO NOT HARDEN



Very

GOOD **PROFITS**

for the

Retailer

OBTAINABLE OF ALL DRUGGISTS' **SUNDRIES**

HOUSES



Markt & Co., London,

American Merchants. SOLE IMPORTERS, 98-100 CLERKENWELL RD., LONDON, E.C.

A. S. LLOYD'S EUXESIS

For Shaving without Soap, Water, or Brush.

CAUTION to the TRADE

Labels on the genuine EUXESIS not only bear signature of A. S. Lloyd in Black Ink, but also "Prepared only by his Widow and signature of

'Aimee Lloyd'" in RED.



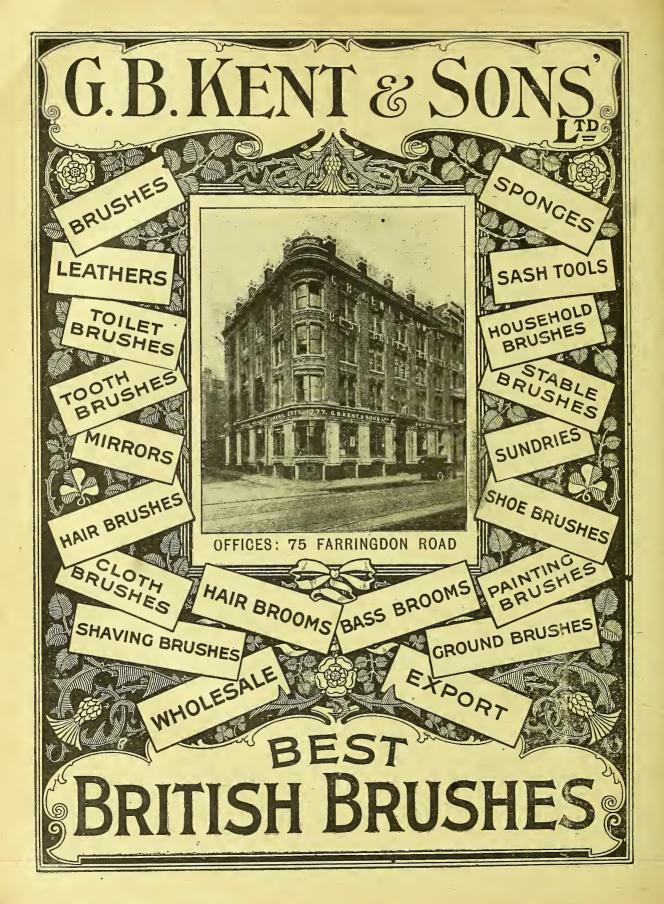
Sole Manufacturers and Proprietors:

AIMÉE LLOYD & Co.,

23 PANTON STREET (Formerly named SPUR STREET),

HAYMARKET, LONDON, S.W.

N.B.—When ordering from Wholesale Houses write LLOYD'S EUXESIS (WIDOW'S).



G. B. KENT & SONS, Ltd.

Offices and Warehouse: 75 FARRINGDON ROAD, E.C.

Registered Telegraphic Address: "TRICHO, PHONE, LONDON."

Steam Factories: ROBINSON ROAD. VICTORIA PARK, E.



Incd. 1900.

Telephone Nos.: 1407 and 4116 CENTRAL.

And River Gade Factories: HEMEL HEMPSTEAD, HERTS.

Australian Agents: Messrs. FRANCIS FORREST & Co., Church Lane, 490 Collins St., Melbourne.

New Zealand Agency: Messrs. PHILLIPS & PIKE, Custom House Quay, Wellington.

Canadian Agents: Messrs. LYMANS, Ltd., Montreal. South African Agency: Mr. C. F. COCKSEDGE, P.O. Box 422, Capetown.

Agent in India and the Far East: Mr. WM. MOORE, c/o Messrs. GRINDLAY, GROOM & CO., Bombay.

Agent in British East Africa: Mr. J. GRAHAM DAWSON, P.O. Box 216, Nairobi.

Agent in the West Indies: Mr. F. N. MARTINEZ, Barbados.

Agent in Egypt: M. VASCO BIGIAVI, P.O. Box 249, Cairo.

United States Agency: Messrs. McKESSON & ROBBINS, 91 & 93 Fulton Street, New York.

Agent in the River Plate: Mr. WM. BURMESTER, Calle Bolivar 240, Buenos Ayres.

Agents in Havana: THE INTERNATIONAL COMMISSION CO., Obrapia 25, Havana.

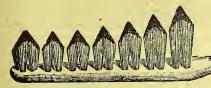
Paris Agency: MM. PITET Ainé et Cie, 51 Faubourg Poissonnière.

Brussels Agency: LA PARFUMERIE, 49 Rue Fossé aux Loups. Agent in Russia: M. JACOB SHMAIEVSKI, Odessa.

Agent in Spain and Portugal: M. JACQUES CAYATTE, Calle Lista 66, Madrid.

Agents in Italy: MM. B. ZAMPONI & CO., Corso Lodi, 3 bis.

EFFICIENT MOST



MADE IS

"JOHN **WESSLER'S**

THE SCHOOL STANDARD TOOTH BRUSH.





IN TWO SIZES.

25/- and 30/- per gross.

With place for writing child's name on each brush. Approved by the School Dentists' Society.

As the oldest and largest manufacturers of Best British Brushes in the world, we can give you better value than foreign makers.

Try our QUALITY and see.

EST BRITISH BRUSHES.

392

Largest

Sponge

Warehouses

in the

World.

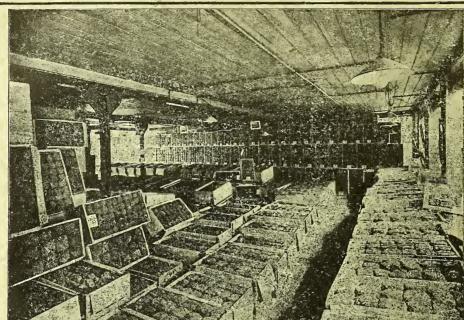
70

CHICAGO TO THE OWN OF THE OWN Telegraphic Address.
CRESSWELL, WESTCENT, LONDON."

Telephone: No. 1432 HOLBORN.

INTERNATIONAL SPONGE IMPORTERS, LIMITED.

Sponge Importers, Exporters and Merchants, and Chamois Leather Dressers, [BRANCH, 9 RED LION SQUARE, New Warehouses and Steam Bleacheries, LONDON, W.C. 18 & 19 RED LION SQUARE,



40.

Our Stocks and Selections are Unrivalled in Value and Extent.

7115

Cases.

View of Mediterranean Case Goods Department (Floor Space 3,000 sq. ft.) where Chemists' and Druggists' Sponges are shown.

Buyers are invited to call to Inspect our Magnificent Stocks and make their own Selections. Lowest Market Absolutely Best Values. The following abridged List will serve as a guide to Buyers when writing.

MEDITERRANEAN HONEYCOMB.

Extra Choice.

The Pick of all

the Fisheries.

FINESTTEXTURE

and SHAPE.

300 Toilet at 9d.

90MediumBath4/6

45 Large Bath 8/6

Average

Price per Piece.

,, 1/-,, 1/6

5/6 6/6

Pieces

200

120

HONEYCOMB.

Good 2nd

Quality.

Av'ge Pieces Price

in Case.

300 at 270 ... 180 ...

per Piece.

6d, 9d,

4/6 5/-

6/6

FINE TURKEY CUPS | FINE

PICKED SHAPES.

ín

Selected 300 at 1

Toilet

Rath

Selected 40

Pieces Price

Case. Piece.

SPONGES

Average

per

, 1/6 , 2/-, 2/6 , 3/-, 3/6

,, 4/-,, 4/6

TURKEY SOLIDS. 1st Quality.

SELECTED

in

Original

SHAPES,

1st Quality Pieces Price ín per

Case Nursery 200 at 6d. 200 ,, 8d. 200 ,, 1-Teilet 150 **

Bath



IMPORTANT NOTICE.

,, 7/6 THE CONTENTS OF THE ABOVE CASES WILL BE PRESS-PACKED AND SENT POST FREE TO COLONIAL AND FOREIGN BUYERS WITHIN THE RADIUS OF PARCELS POST.

LOOSE GOODS DEPARTMENT

Sponges in Small Packages. Fine Turkey. Fine Egyptian and Honeycomb. In 1st, 2nd and 3rd Qualities. Bleached or Unbleached (state which in orderine). On Strings of I dozen pieces or loose in bags. At per dozen 2s., 3s., 4s., 6s, 9s., 12s., 15s., 18s., 24s., 30s., 36s. 42s., 48s., 5s., 48s., 24s. Bleached Cuban. At per String or Dozen. Wool, Grass, Veilow and Fine. 1s., 2s., 3s., 4s., 6s., 9s., 12s., 15s., 18s., 24s.

RUBBER SPONGES .- THE BEST QUALITY AND VALUE ON THE MARKET. "ABLUTONIC" Brand ...

SUBJECT TO

"Sewbery & sons LE

SPONGES

THEY are dear elsewhere because of the danger in obtaining in the Mediterranean and other Seas, for reasons that need no elaborating. Sunken dangers, which are likely to remain undiscovered for some time after cessation of hostilities, will keep them scarce.

"MUSHROOMS OF THE SEA." BUT we have made an exceptionally advantageous purchase of the stock of a firm of Sponge Merchants, and can offer to our customers at unusually low prices:

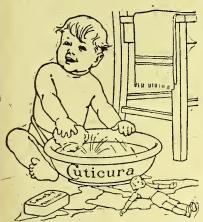
4/6 doz.	- (3/6 each
5/- ,,	For HONEYCOMB	3/9 ,,
116 ,,	sponges of nice	4/6 ,,
17/,	regular shapes, clean and velvety	6/- ,,
21/~~,,	in texture; and	7/- ,,
24/- ',,	super - pieces at	7/6 ,,
36/- ,,	,	And upwards.

SPECIAL QUOTATIONS FOR COMPLETE CASES.

A range of TURKEY SPONGES luxuriously soft in texture, and symmetrical cups at 8/- and 12/- per doz., and 1/6, 2/6, 2/9, 4/6 each. All prices subject to 5% discount. Scores of cases are open to the inspection of those of our customers who can conveniently call at our showrooms, but Provincial Pharmacists can confidently order their requirements without viewing, and be assured of receiving the best value obtainable.

F. NEWBERY & SONS, Ltd.,

CHARTERHOUSE SQUARE, LONDON, E.C.



CUTICURA SOAP BATHS

Followed by a Little Ointment for Tender Skins. Trial Free.

They afford infants and children great comfort, permit rest and sleep and point to speedy healment of eczemas, rashes, itchings and chafings. Nothing better at any price for the nursery and toilet.

Sample Each Free by Post

With 32-p. book. Address F. Newbery & Sons, 27, Charterhouse Sq., London, E. C., Eng. Sold throughout the world.

Francis Newbery & Sons, Ltd. LONDON, E.C.

SOLE BRITISH DEPOT FOR

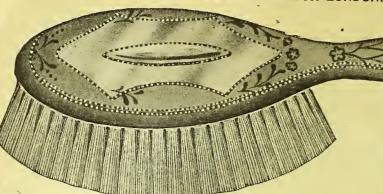
CUTICURA SOAP

Retail, per Tablet - - - - - 1s.

Wholesale, per doz., any quantity less than an original Case - - 10s.

Wholesale, per original Case of 60 doz: - - - - £28 10s.

All previous Quotations are cancelled. TERMS: Net Cash 30 Days, ex Warehouse, London. Trade Mark: "SILWYR LONDON."



No. 133, at 10/- per Dozen.

NICKELLED HAIR BRUSH.

FILLED WITH WHITE STIFF MIXTURE.

BRITISH MANUFACTURE.

To be obtained from all Wholesale Houses.

Illustrated Price Lists from the Manufacturers, M. NEUHAFER & LEVI, 11 Fore Street, London, E.C.



Bidwell Bidwell & Co

BRUSHES. LOOSE HAIRS. LOOSE

ANALAX

(Regd. Pat. No. 310716).

THE
IDEAL
FRUITY
LAXATIVE
IN
PASTILLE
FORM.



DELICIOUS
RELIABLE
EFFECTIVE
STEADY
PROFITABLE
SELLER

FROZOCLONE

(Regd.)

THE WORLD'S

GREAT PERFUME

AND

REFRESHER IN

SOLID FORM



RETAILS
(P.A.T.A. MINIMUM 2/-)
GIVING AT LEAST
6D. PROFIT
ON EACH SALE

FROZOCLONE is a convenient form of the finest Eau de Cologne, refreshing when rubbed on the forehead, equally pleasant as a smelling bottle, invaluable in a heated atmosphere and when motoring.

RISICCOL (Regd.)

(Demuth's Castor Oil Powder) prepared from the purest Castor Oil, absolutely tasteless, yet possessing all medicinal properties

MUTHOL (Regd.)

A deliciously palatable cream containing 99% purest medicinal Petroleum Oil B.P.

FRU-MUTHOL (Regd.)

Prepared from Paraffinum Liquidum B.P. and Fruit Juice in the form of a Jelly. Raspberry, Lemon and Orange Flavours.

LEMON-SQUASH TABLETS

(Home-made Lemonade). Made with pure lemon and sugar. Delicious and refreshing. One tablet sufficient for a pint of water. In tins containing 12 tablets,

CARNATE

A Nail Polish with new and distinctive features.

Antiseptic—Keeps soft—Brilliant and lasting polish.

SOUND SPECIALITIES CARRYING A GOOD PROFIT, — Full Particulars and Advertising Literature on request.

R. DEMUTH'S LABORATORIES 68 SALUSBURY ROAD,

Telegraphic Address: "Boulbene London."

Telephone: 525 Willesden.



TRADE MARK



Radiozone (Oxygen) Baths

FOR the administration of Oxygen in a concentrated and highly nascent condition. Specially valuable in cardiac cases, with high arterial tension, in nervous and vaso-motor disturbances, insomnia, and auto-intoxication.

Patentees and Sole Manufacturers: WRIGHT & CO., Silverlands, Buxton, England.

Prices and Literature on Application.



WRITING INK POWDER

As supplied to Govt. Depts. and the principal Railway Cos. Saves 98%, Freight. Suitable for any Climate.

ALSO
WRITING INKS,
COPYING INKS,
GUMS, PASTES,
INK POWDERS,
STENCIL INK.

T.WEBSTER & Co. Diamine Works, LIVERPOOL.



BROOKS, PEEL & CO., LTD.

Makers of Collapsible Tubes and Filling Machines for sams. Patentees o.

Sprinkler and other Stoppers for Perfumes, Washes, &c. Screw Caps.

24 City Road, Finsbury Square, London, E.C.



EVANS

FOR

Counter Adjuncts

(Chemist's proprietaries with their own name and address).

EVANS SONS LESCHER & WEBB

Limited

Liverpool and London New York, U.S.A.

See also pp. 19, 36, 133, 137, 143, 146, 150, 154, 164, 173, 204, 210, 213.

BLACK AND TRANSPARENT RUBBER

FEEDING BOTTLE TUBING
NUMEROUS PATTERNS AND SIZES OF HYGIENIC AND ORDINARY

FEEDING BOTTLE TEATS

CARDED COMFORTERS.

THE ALTRINCHAM RUBBER COMPANY,
Mossburn Buildings, Stamford New Rd., Altrincham

FROM ALL SUNDRY DRUG HOUSES



4 1-DOZ. SHOWCASES. MENDIT LTD., BIRMINGHASS



GOLDEN MALTEX

IN YOUR WINDOW MEANS



IN YOUR TILL.

PASCALL'S GOLDEN MALTEX

contains 25 per cent. of Allen & Hanburys' Malt Extract, and is especially recommended for children. It is admirably suited for sale by Chemists owing to its nutritive and restorative qualities; and as beneficial as Cod Liver Oil, with the advantage of being a delightful sweet.

In 8d., 1s. 4d., and 1 lb. bottles, and (loose)

Also Golden Maltex Bonbons, in oval tins, and in sachets.

Order through your wholesale druggist, or direct from the manufacturers—

JAS. PASCALL LTD LONDON, S.E.







LIQUORICE

ALL the Best Brands-On spot.

Apply LINTON, HUBBARD & ANDREW, 72-75 Fenchurch St., LONDON, E.C. Telephone: 1892 Avenue. A B C & Lieber's Codes. Cables & Telegrams: "LINTEOLO LONDON."

ERNEST JACKSON & CO

Manufacturing Chemists.

LIMITED.

Specialists in MEDICATED LOZENGES, PASTILLES, JUJUBES COMPRESSED TABLETS, CAPSULES, PERLES CACHOUS, BOILED GOODS, SALINES, &c. &e

IMPORTERS of LIQUORICE JUICE

THE ORIGINAL cushion-shaped LIQUORICE & MENTHOL PELLETS.

WORKS & CREDITON, DEVON.

LONDON Plantain Place, DEPOT: Crosby Row, BOROUGH, S.E. —Telephone: HOP 2668ELEPHONE: CREDITON, No. 10. 1

ELEGRAMS: "JACKSON-CREDITOL."

BAKING POWDERS EGG POWDERS.

REDUCE COSTS by using

SPECIAL AERO CREAM.

A guarantee of purity given on each invoice, signed by S. M. WALFORD, F.C.S.

Specialists also in FLAVOURS and COLOURS for Custard Powders, Cake Flours, Egg Powders, &c.

WALFORD & CO., LTD., Collyhurst, Manchester.

NOW IS THE SEASON FOR COUGHS AND COLDS NOW IS THE TIME TO STOCK

icoricine ACTS LIKE MAGIC

"LICORICINE" is an article of wonderful merit. Widespread recommendation and steady and persistent advertising ensure a rapidly increasing sale.

YOU stock it, of course?

DECEMBER 1916.

REVISED PRICES

for Licoricine, "Red Bottle," and "Spasm Drops":-

 $10\frac{1}{2}$ d. size ... 8/6 per doz.

1/3 , 12/3 ,

3/- ,, 27/-

Fixed MINIMUM RATES: $10\frac{1}{2}$ d., 1/3 & 3/- per bottle

Orders of £2 Carriage Paid. Orders of £5 and up less 5 per cent.

MANDALL & CO. LTD.

Manufacturing Chemists,
STOCKTON-ON-TEES.

Thos. GUEST & CO., LTD.

Carruthers St., Ancoats, MANCHESTER.

PROFITABLE LINES FOR CHEMISTS

BRONCHIAL LOZENGES

 6^{D} . 1/-TINS.



BRONCHIAL LOZENGES

6^{D.}
AND 1/TINS.

SPECIAL OFFER

CARRIAGE PAID.

6^{d.} TINS

Bismuthated

Magnesia

Lozenges

PACKED IN ENAMELLED TINS. ATTRACTIVE SHOWCARDS SUPPLIED. 2 doz. 6d. Bronchial Lozenges

1 doz. 1/- Bronchial Lozenges

2 doz. 6d. lodised

Throat Tablets

2 doz. 6d. Bismuthated
Magnesia Lozenges

FOR

28/-

CASH WITH ORDER.

6^{d.} TINS

Iodised
Throat
Tablets

PACKED IN ENAMELLED TINS. ATTRACTIVE SHOWCARDS SUPPLIED.

4

SOLAZZI

PURE LIQUORICE, JUICE.

THE LANCET says:

The above brand has long been known to be of standard purity. We found the specimen to be completely soluble in water, and entirely free from impurities of any kind. It is, therefore, well adapted for the pharmaceutical purposes for which it is so useful, while as a popular demulcent it is both safe and reliable."

THE

CHEMIST

AND DRUGGIST

says :

"The most esteemed of all."

To be obtained of all

Ghemists in the

United Kingdom

and

British Golonies.

RECOMMENDED ALSO BY

"THE BRITISH MEDICAL JOURNAL,"

"HEALTH,"

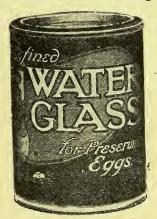
"FOOD AND SANITATION," &c.

ASK FOR SHOWCARDS AND HANDBILLS.

THE CHEMISTS' BRAND

Buy WATERGLASS now at the Season's Lowest Prices.

ITH bitter memories of recent phenomenal egg prices, probably five out of six of your customers are thinking: "My word, I'll not be caught again next season—I'll lay down a stock in Waterglass!" There is therefore certain to be a huge demand, and you'll do well to lay in a good stock at once. Our Waterglass is of the highest quality (which makes successful preserving easy) and is attractively packed in tins. Compare the handsome sales-making label with that of any other pack.



PRICES.

I	lb.	soldered	lever	-lid	TIN	S	3/-	doz.
2	,,	"	"		"		5/-	"
4	,,	"	,,		,,		8/6	,,
7	,,	"	,,		,,	1	3/-	,,
14	,,	27	,,		,,	2	25/-	"
	Les	s 2½% to	o a/c.	Tins	free.	F.O.1	R. Leed	ls.
	Ful	1 direct	ions	for	use	on	Label	s.

DISPLAY this Strong Showcard

along with a few of the handsome tins, in your window and on your counter, and ensure a successful and profitable Waterglass season.

On request we send a couple free with every Waterglass order.

Goodall, Backhouse & Co., Leeds. Tel. 3574 Central.





Established 132 Years ago

British Partners since Commencement. R. J. FULLWOOD & BLAND,

THE ORIGINAL INVENTORS OF ANNATTO.
THE FIRST MANUFACTURERS OF RENNET IN ENGLAND.

ANNATTO

Cheese Rennet, Butter Colour, Essence of Rennet, Rennet Powder, Junket Powder, Junket Tablets.

Offices and Manufactory: 31, 33, 35 BEVENDEN STREET, HOXTON, LONDON, N.

CASEIN

ALIMENTARY & INDUSTRIAL

Dairy Produce Importers.

NIEUWHOF, SURIE & CO., LTD.

OFFICE

5 Lloyd's Avenue, London, E.C.

WORKS AND WAREHOUSES:

9 Aldgate Avenue, London, E.

TELEPHONES TELEGRAMS - - AVENUE 34 & 35 "SURICODON, LONDON"

"FERROCARNIS"

A pleasantly flavoured solution of iron in organic combination with BRAND'S Concentrated Raw Meat Juice.

Ferrocarnis combines the stimulating properties of meat juice with the tonic effect of iron. This product does not cause constipation, and thus affords a means of administering iron to patients who are unable to take ordinary iron preparations.

PREPARED BY

BRAND & CO., LTD., SOUTH LAMBETH ROAD, S.W.

SUGAR OF MILK

"Sowalt" Brand.

GUARANTEED B.P.

For Quotations apply to-

NALBOROUGH & SONS, Ltd., HARWICH, ESSEX.

Do You Sell Sister Lauras Food?



The question is often asked nowadays.
The Chemist who does not stock Sister
Lauras Food is missing a good line.

Sister Lauras Food is achieving great success as a preparation for weakly babes and for invalids and the aged. It makes milk digestible and is invalu-

able in cases of malnutrition.

It is a thoroughly reliable line and one that brings a handsome return.

Price 1/- & 2/6 per tin. Samples and advertising matter free on application.

SISTER LAURAS INFANT FOOD CO., Ltd., 156 Vincent Street, G. L. A. S. G. W.

HORLICK'S RATION TINS

MALTED MILK TABLETS

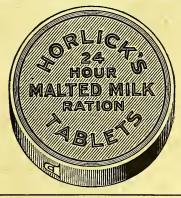
can now be supplied in limited quantities TO THE TRADE

12/6 per Doz.

plus carriage.

For Despatch BY POST —ТО---MEN AT

THE FRONT



RETAIL - PRICE -

ORDER OF YOUR WHOLESALE HOUSE HORLICK'S MALTED MILK CO., SLOUGH, BUCKS.

LACTAGOL

FOR NURSING AND PROSPECTIVE MOTHERS.

(TRADE MARK)

BRITISH MADE AND BRITISH OWNED

and Protected at Face Value.

Lactagol is recommended by over 20,000 Midwives

BRITISH MADE AND BRITISH OWNED.

VASOGEN

PREPARATIONS.

Iodine Vasogen. Guaiacol Vasogen. Salicyl Vasogen. Mercury Vasogen. etc.

The Vasogen combinations of British manufacture have met with an excellent reception, and as we are prepared to receive back for credit any unbroken packages of our manufacture left on your hands during 1917 through any slackening of the demand

you need not hesitate to stock on receipt of your first prescription.

THE INCREASING DEMAND FOR

PHENALGIN

is the outcome of medical appreciation of its merits and the wonderful results achieved by Phenalgin in the treatment of

DYSMENORREA, NEURALGIA, HEADACHE, INFLUENZA, FEVERS, NEURASTHENIA, MIGRAINE, HYSTERIA, etc.

This first-class product is backed by firstclass medical propaganda, and promises record sales. YOU will be asked for it —do not send your client to a competitor.

In I oz. Bottles of Powder, and Tablets 21 & 5 gr.

E. T. PEARSON & CO., LTD.

MANUFACTURING CHEMISTS, LABORATORIES, MITCHAM, SURREY.

"AGALACTIA." ITS INFLUENCE ON INFANT MORTALITY.
Post Free on Application.

VITAFER

THE ALL-BRITISH TONIC FOOD.

Manufactured and introduced by Southall Bros. & Barclay in 1910. In tins, 1/6, 2/6, 4/6, 7/6. Wholesale, 12/-, 20/-, 36/- and 60/- per dozen.

Specially packed for Colonial Markets, e.g., India and the Tropics, in 4 oz., 8 oz., and 16 oz. bottles. Wholesale Agents and Merchants should specify the Market.

SPECIAL WINDOW SHOW TERMS FOR THE UNITED KINGDOM. WRITE FOR PARTICULARS.

ALDEMINT

THE ANTISEPTIC THROAT TABLET.—A hard, smooth-faced well-finished Throat Tablet, composed largely of Milk Sugar and liberating Formaldehyde when dissolved in the mouth.

In screw-capped ambers bearing 6d. stamp, 2/- each. Wholesale, 17/- per dozen.

LYCRESOL

A CONCENTRATED ANTISEPTIC composed of Cresylic Acid and Potassium Soap. Contains 50% free Cresylic Acid, and is more germicidal than Pure Carbolic Acid.

In ambers, 4 oz. $7\frac{1}{2}$ d., 8 oz. 1/-, 16 oz. 1/9, 32 oz. 8/-; gallon tins, 12/- each. Wholesale, 4/9, 8/-, 14/-, 26/-; gallon tins, 8/- each.

CYSTOFORMIN

A POWERFUL ANTISEPTIC for all infected conditions of the bladder and urinary tract.

In tubes of 20 Tablets, 1/6 each. Wholesale, 12/- per doz.

VITAFER CHOCOLATE

A DELICIOUS STIMULANT AND CONFECTION.

In handsome packets of 12 and 24 tablets, 7½d. and 1/3 each. Wholesale, 5/6 and 11/- per dozen. Specially packed in tins for the Front.

SHOW BOXES AND SHOWCARDS ON APPLICATION.

Most of the above are on the P.A.T.A., and can be supplied by all the Wholesale Houses or direct from the Manufacturers,

SOUTHALL BROS. & BARCLAY, LTD., BIRMINGHAM.

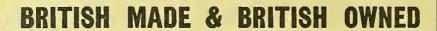
Samples and literature for Medical and general distribution supplied free of charge.

HOOKER'S MALTED MILK

"A complete food." - Lancet.

SELLS ENTIRELY ON MERIT.

There is no Higher Quality or Better Value



DEMAND RAPIDLY INCREASING.

LARGE PROFITS TO SELLERS.

PRICES AND TERMS FROM

THEW, HOOKER & CILBEY, LTD., BUCKINGHAM.

One of the many recent testimonials relating to

HOOKER & GILBEY LIHIT

Sanaphos.

H (T.W. Read.)

The ideal reconstructive nerve food.

"I shall recommend 'SANAPHOS' to my friends here; it is very good to take and has not that disagreeable smell. I find that my chemist will be able to get it from his English house."

F. L. MITCHELL, Villa Frey, Bern.

The fixed prices at which Sanaphos is sold show a net profit to the retail chemist of over 30 per cent. on selling price (over 40 per cent. on cost.) The wholesale prices are:—11- size, 8/6 per dozen; 1/6 size, 12/9 per dozen; 2/6 size, 21/- per dozen; 5/- size, 42/- per dozen. Sanaphos is a reconstructive NERVE Food; Nutrient, Restorative and Activating. It is indicated in Mental and Physical Fatigue; Nervous Breakdown; Insomnia; and Neurasthenia. Sanaphos is an organically phosphated milk product, much superior to the former German-owned article, and is prepared in England under strict scientific control. Chemists are invited to write for samples, showcards, and all particulars; and to send names of physicians, to whom we shall be pleased to send samples of Sanaphos and copies of numerous professional endorsements. Address:

The British Milk Products Co., Ltd., 69 Mark Lane, London, E.C. — Exceptional Terms for Supplies to Hospitals.

PUSH

FRAME FOOD

The most economical Infants' Food.

IT BEARS A GOOD PROFIT TO RETAILERS.



Chemists should write for Dummies and Showcards.

FRAME FOOD CO.

Food Specialists,

Southfields, London, S.W.

The Name Chiuson

has gained the confidence of an ever-increasing number of the Public who follow the advice of that dietetic specialist, Dr. T. R. Allinson, whose preparations, manufactured solely by the Natural Food Co. Ltd., are in constant demand, and are the source of much profitable business to those chemists who stock them.

Dr. ALLINSON'S NATURAL FOOD FOR BABIES

A preparation which has strongly established itself as an ideal infant's food—successful even in the case of the most delicate or weakly children.

8d. Tins ... (minimum retail price) 8d. each 6/6 per doz. 1/4 ... 13/- ... 3/4 ... 3/4 ... 34/- ...

Dr. ALLINSON'S 'BRUNAK'

The breakfast drink, instead of TEA or COFFEE, is finding a place in every home. It does not cause nervousness, trembling, wakefulness, palpitation, or flushing, as do tea and coffee. It is as refreshing as tea, as tasty as coffee, as comforting as cocoa, and as harmless as water.

½ lb. Packet (8½d.) 7/- per doz.

1 lb. Packet (1/5) 14/- per doz.

Dr. ALLINSON'S 'POWER'

Is a splendid food for breakfast or other meals. It is ready cooked.

The flavour is delicious, and everyone likes it.

In 1 lb Packets 8d. each 6/6 per doz.

Dr. ALLINSON'S Prepared Barley

KINDLY NOTE.—If any of our goods fail to give satisfaction to, or are returned by your customer as being soiled or out of condition from any cause, kindly exchange or allow for same, and we will either replace the goods or refund amount to you as you prefer. All prices are subject to alteration without further notice owing to the fluctuations in the price of raw materials consequent on the War.

We issue a list of Agents' addresses and shall be glad to add yours on receipt of a postcard.

THE NATURAL FOOD CO., LTD., Bethnal Green, LONDON, E.

and Nerve Restorative

The Improved Casein-Glycerophosphate Food

By

Dynose September 1997 September 1997

An Easily Digested Nerve Food Rich in Phosphorus

Composition of "Bynogen."

"Bynogen" is a combination of pure Milk Protein, 75 per cent., and specially prepared Dextrin-Maltose, 20 per cent., with 2 per cent. each of the Glycerophosphates of Soda and Lime, and 1 per cent. of Glycerophosphate of Magnesia.

Uses of "Bynogen."

"Bynogen" is indicated in all Enfeebled Conditions, in Convalescence after Severe Illness, Mental and Nervous Exhaustion due to worry or overwork, Insomnia, Physical Fatigue, Wasting Diseases, Anæmia,

Digestive Troubles, etc.
"Bynogen" is very helpful to
Nursing Mothers for overcoming the strain caused by
breast feeding.

Minimum Retail Prices: 1/9 and 3/- per bottle. Gross Wholesale Prices:

Gross Wholesale Prices: 17/- and 29/- per doz. bottles respectively.

Allen & Hanburys Ltd.



Advantages of "Bynogen."

"Bynogen" possesses a most attractive flavour and thereby overcomes the objection hitherto experienced in other somewhat similar products.

"Bynogen" strengthens digestion, improves nutrition, and does not cause constipation.

"Bynogen" is delicious when sprinkled on puddings, toast, etc. It mixes readily with milk and other fluids, or it may be eaten plain if desired.

Profit on "Bynogen."

"Bynogen" yields a profit on return of 25% monthly a/c terms. When "Bynogen" forms part of a £5 carriage paid general order for the "Allenburys" Specialities the profit on "Bynogen" is increased to 27½%

SAMPLES AND DESCRIPTIVE LEAFLETS FREE ON REQUEST

Lombard St., London.





KEENE'S Penny Cubes.

Cocoa, Tea and Malted Cocoa (with Pure Milk and Sugar).

Malt and Milk (Finest Peptonised Malt).

Attractively made up in 6d. Boxes.

SAMPLE BOX OF 6 CUBES 3d., WITH SPECIAL DISCOUNTS.

KEENE'S, Cube Specialists, LEICESTER.



Sells readily ALL the time.

COLEMAN & CO., Ltd., Wincarnis Works, NORWICH.

TO CHEMISTS

WITHOUT LICENCES

It has been established by law that Registered Chemists may sell "Wincarnis with Quinine" without a licence.

FOR IMMEDIATE DELIVERY.



No. 23/6/7 Pint size. Imitation Leather E name II ed on Metal in Colour, Wine, or Khaki. Retail 4/11 each. Per dozen 48/6

No. 63/6 Quart size Imitation Leather E n a melled on Metal in Colour, Wine, or Khaki. Retail 9/6 each. Per dozen 90/-



No. 62
Quart size %
Corrugated
Nickel Plated. 1
Retail 12/6 each.
Per dozen 111/-



No. 44
Pint size
Best plain
Nickel Plated.
Retail 10/6 each.
Per dozen 92/-

No. 88 Quart size Best plain Nickel Plated. Retail 15/6 each. Per dozen 135/-

ICY-HOT

BOTTLES VACUUM FLASKS

(See every Bottle is marked "ICY-HOT" and heware of imitations now being offered).

WE GUARANTEE THAT THESE BOTTLES ARE MADE IN AMERICA BY AMERICAN WORKMEN

Not Affiliated with any German Company

ALL BOTTLES EQUALLY GUARANTEED TO

KEEP HOT THINGS HOT 30 HOURS. KEEP COLD THINGS COLD 3 DAYS.

Refills

Pints ... 38/- per dozen Quarts ... 75/- per dozen

Pints ...

Spare Corks ... 1/6 per dozen

2/0 per dozen

Sole Agents HENRY C. QUELCH & CO. 4 & 5 Ludgate Square, LONDON, E.C.

May be obtained through all the London or Provincial Wholesale Houses.



There is no better Flask made than the

"ALL BRITISH" VACUUM F L A S K,

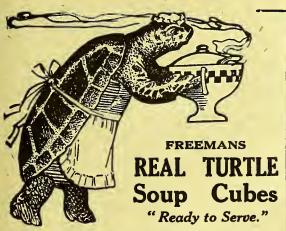
of which not only the protective outer casing but the essential glass vacuum bottle are

MADE IN ENGLAND.

. SOLE MAKERS-

AERATORS LIMITED

"Prana" Sparklet Works,
UPPER EDMONTON, LONDON, N.



Made from the real rich meat of selected West Indian Turtles—so that real Turtle Soup, once the privilege only of the rich, is now a delicacy easily accessible to every household. No other soup is so nourishing and delicious.

Made in a minute with boiling water.

To retail in 1/- Cartons containing 4 Cubes.

THE WATFORD
MFG. CO., LTD.,
Makers of
Freemans Table
Dainties, Boisseliers
(Boy-sele-a) Chocolates,
and Vi-Cocoa,
Victoria Works. Watford



THERMOS FLASKS

are goods that sell easily, satisfy customers, give good profits.

THERMOS

goods are strongly made, finely finished, and absolutely reliable.

THERMOS

articles sell Winter and Summer, to rich and poor, and are well advertised.

STOCK

THERMOS

FROM

THERMOS LTD.

BYRUN HOUSE, 2&4 FINSBURY ST., LONDON, E.C.

MILLIONS

GLASSES

DRUNK

DAILY

BÝ

WORKERS

ALL

OVER

THE

EMPIRE.

OF ·

MAKE

PRIME

HERB

BEER

AT

HOME

FROM

MASONS

EXTRACT

OF

HERBS.

A 6º BOTTLE MAKES & GALLONS. NEWBALL& MASON NOTTINGHAM.



THE GREAT FOOD VALUE OF HONEY

is being more and more realised by the Public, and it is of national importance that it should be so. Our

MEADOW HONEY

is both DELICIOUS and HIGHLY NUTRITIOUS. It is guaranteed pure as imported, and the many Chemists who stock it find it a quick selling and profitable line.

Packed in Glass Jars, Earthenware Crocks and Tins.

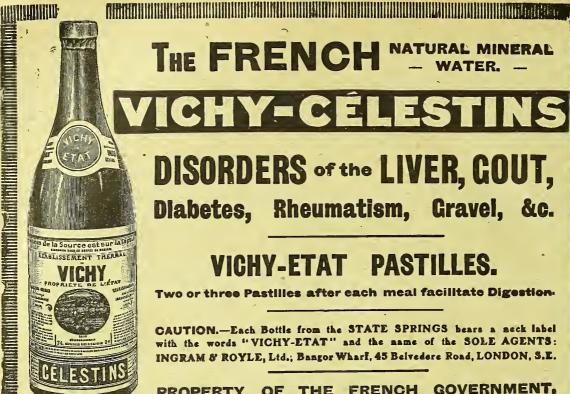
ROSELEAF HONEY

of fine flavour but not so light in colour.

Packed in Terra-Cotta Crocks.

DROP US A LINE FOR PRICES AND SAMPLES.





THE FRENCH

DISORDERS of the LIVER, GOUT, Diabetes, Rheumatism, Gravel, &c.

VICHY-ETAT PASTILLES.

Two or three Pastilles after each meal facilitate Digestion-

CAUTION .- Each Bottle from the STATE SPRINGS bears a neck label with the words "VICHY-ETAT" and the name of the SOLE AGENTS: INGRAM & ROYLE, Ltd.; Bangor Wharf, 45 Belvedere Road, LONDON, S.E.

OF THE FRENCH GOVERNMENT.

MANUFACTURED BY

C. W. FIELD, LTD.,

Cambrian Mills, LIVERPOOL.

Special Terms to Wholesalers and large Consumers.



EWEN'S LARD

is the ONLY LARD

that is made exclusively for pharmaceutical and perfumery preparations and is the

BEST AND MOST RELIABLE

Guaranteed B.P. Lard on the Market.

BEARS THIS LABEL



Saint-Raphael

Tonic, Restorative, Digestive Wine.

Known throughout the World and prescribed in all cases of ANÆMIA, DEBILITY, and CON-VALESCENCE, to Young Women, Children, and the Aged.

DOSE: One Wine-glass after the two principal Meals.

Recommended by— PROF. BOUCHARDAT, Professor of Hy-giene, Paris Faculty of Medicine. DR. MacNAUGHTON JONES, London, Dr. MACN England.

"For more than thirty years St. Raphaël Wine has been exclusively prescribed, with success, in the Parls hospitals as a pure tonic, by eminent physicians, such as Maganiae Rostan Chomel, Velpeau, Requin, Monneret, Trousseau, Grisolle, Laënnec, &c."—Union Médicale, May 8 and Grisolle, Lac June 12, 1873.

"The 'Vin de St. Raphaël' is often used for ladies nursing their own children; it is preferable to stout, which creates an unhealthy fat."—The Lancet, London, England.

"St. Raphaël Wine is most precious in all cases where it is necessary to give tone to the system, without effort or shock."—Dr. C. Drs Barres.

Cle du VIN SAINT RAPHAEL, Valence, Dreme, FRANCE.

> To be obtained from all Wholesale Druggists.



To Aerated Water Manufacturers.

DELICIOUS AERATED BEVERAGES

ARE MADE FROM

HAY'S ESSENCES

Cream Soda Essence,

Cream Raspberry Essence

Cream Strawberry Essence

Peach Ripe Essence,

Orange Squash Essence.

Claret and Lemon Essence,

Cherry Cider Essence,

Lemon Squash Essence (BRIGHT or CLOUDY)

Lime Squash Essence.

Lime Juice and Soda Essence,

Orange Champagne Essence,

Kola Champagne Essence, and

"Pale Dry" Ginger Ale Essence.

SAMPLES AND FULL DIRECTIONS FOR USE FREE ON APPLICATION.
ATTRACTIVE LABELS AND SHOWCARDS SUPPLIED.

Orders for Two Gallons and upwards of Essence may be shipped under bond.

Indentors when ordering should specify HAY'S manufacture.

WILLIAM HAY, Ltd.

ESSENCE HULL & LONDON.

Head Office and Laboratories-HULL, Eng.

London Depot-3 YORK ST., WALWORTH, S.E.

Telegraphic Address

"Bushworth London."
"Hay, Limited, Hull."

National Telephone

London, No. 2753 Hop. Hull, No. 488. Code: ABC, 5th Edition.

In the Syphon

It is quality in the syphon that counts. Back-pressure puts it there.

High-pressures in the aerating cylinder won't do it. All that means is big gas bills and many syphon breakages.

It's usual to aerate to 180 to 200 lb. to leave 60 lb. in the syphon! True, but this means loss of gas—a lot of gas.

The remedy is back-pressure filling. Waters aerated to 60 lb. will show 55 lb. in syphon—a clear saving of more than 50 per cent. in CO₂ alone, while the lower bottling pressure reduces breakage to a minimum and ensures the supremely perfect product.

Write for particulars of "Compact" Back-Pressure Soda-water Machines.

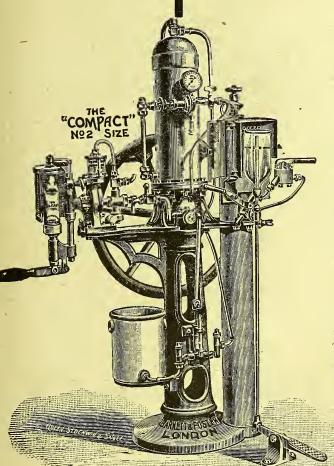
Barnett & Foster

(Proprietors of Galloway Brothers)
ENGINEERS,

Contractors to the War Office and Crown Agents,

Dept. O₂, Niagara Works, London, N., and at BOLTON, LANCS.

Telegrams: "Drinks London"; "Soda Bolton." Telephone: London 1605 North; Bolton 545.



"Compact No. 2"

Soda-water machine complete with inverted gun-metal pump; automatic saturating cylinder; Ideal turnover filler with syrup pump and syphon filler.

Price £50:2:0

No. 170

MILLAR'S



PREPARED IN
strict accordance
with
the Formula



of the BRITISH PHARMACOPŒIA.





LIMITED.

DUBLIN.

WHOLESALE ONLY.

London Agent:—

43 Great Tower Street,

JAMES STIRTON,

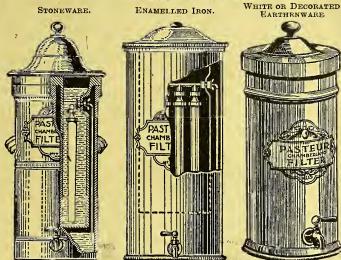
London, E.C.

A SELECTION D.

for Household and Office use, and for Travelling.

THE PASTEUR - CHAMBERLAND FILTER is the ONLY FILTER authorised by M. PASTEUR to bear his name.

NON-PRESSURE FILTERS.



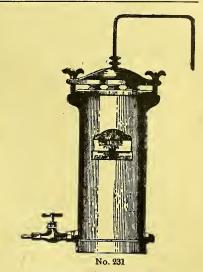
No. 202.

No. Capacity. Output Price.
202 A 2 galls. 3 galls. £1 11 6 202 A 202 B 202 C 5 0 10 5 10 202 D 202 E

Sizes same as Stoneware

Prices as Series 202, plus 5 per cent.

No. 234. No. 250. Round Shape. Filters. Series 202. Capacity. Output. Price. 250 A 2 galls. 3 galls. £2 5 0 250 B 3 " 5 ,,



Main Pressure Filter, in cast iron, enamelled inside and painted outside, with N.P. inlet and outlet.

No.	No. of tubes	Output per day	Price		
231 A 231 B 231 C	3 5 7	30 gallons 50 ", 70 ",	£ s. d. 4 4 0 5 15 0 7 7 0		

PRESSURE FILTERS.

For attachment to the main service or supply pipe from a cistern.





No. 215. Nos. 216 and 216a. No. 215.—Nickel-plated Filter with screw-down tap for attachment No. 216.—The same, with Stoneware filtered water reservoir, overflow, and nickel-plated draw-off tap

No. 216.—The same, with Stoneware filtered water reservoir, overflow, and nickel-plated draw-off tap

No. 216a.—The same, with Crystal filtered water reservoir \$2 2 0 Bracket for above, 3/6.

OFFICIAL GOVERNMENT STATEMENT.

"Wherever the PASTEUR FILTER has been applied, TYPHOID FEVER has disappeared."

TRAVELLERS' POCKET FILTERS.



Nos. 212 and 213.

No. 212. -Output, 6 pints per hour £2 2 0

These Filters are designed to yield in the smallest compass a rapid supply of pure water. The conical indiarubber plug will fit the Service water-bottle or any other which may be handy. By means of the small air-pump a partial vacuum is created in the bottle, and water begins to flow. After the flow is started the pump need not be continuously worked. In this way with one filter tube a pint of water is obtained in a few minutes.

The PASTEUR-CHAMBERLAND FILTER is also made in a variety of other patterns for both large and small installations.

The British Pasteur Chamberland Filter Company, 5 White St., Finsbury, London, E.C.

Telegrams—" Paschafil, Ave, London."

(In succession to DEFRIES Ltd., of Houndsditch and Deptford.)

Telephone-London Wall 5991.



TRADE MARK

WE ARE

HEADQUARTERS

FOR

WAXES

all kinds

PETROLEUM JELLY

White and Yellow.

WHITE OILS

Send your inquiries to

J. J. FRANSES & SONS

80a Southwark Street, London, S.E.

English and Welsh News.

The Editor would be obliged if subscribers would send him marked copies of newspapers containing items of interest for insertion in this or other news sections of the "C. & D."

The Great Explosion.

At seven o'clock on January 19 a great explosion occurred



at a munitions factory in the East-end of London, the noise being heard for miles, and the force of the explosion experienced over a wide area. It is known that sixty-nine people have lost their lives, and that seventy-two people are seriously injured. Some Some 328 persons are reported as slightly injured. The cause of the explosion was a fire reaching a factory where chemical munitions are manipulated. It is stated that before the flames reached the explosives the chief chemist at the works, Dr. Andrea Angel, warned the workers to leave the building as quickly as possible, and himself went to assist the firemen. In the subsequent explosion he was assist the firemen.

Br. Andrea Angel.

Subsequent explosion he was killed. Dr. Angel was a nd Bachelor of Science and Master of Arts. His grandfather, Signor Rabagliati, was a political refugee from Italy, and his daughter married Mr. Thomas Angel, of Penally, near Tenby, South Wales. Dr. Angel was a son of that marriage. He was forty years old, and had a distinguished career behind him when he accepted an appointment under the Ministry of Munitions. From his school at Exeter he gained a Science Scholarship at Christ Church, Oxford. He took first-class honours, and later became well known as lecturer in scientific subjects at Christ Church and Brasenose. at Christ Church and Brasenose.

Contracts Accepted.

The following have been accepted since we last reported: Lambeth Board of Guardians have decided to continue their existing contracts with The British Drug Houses, Ltd., and S. Maw, Son & Sons for the supplies of drugs and druggists' sundries respectively for a further period of three months.

London County Council .- Drugs, Baiss Bros. & Co., Ltd., London County Council.—Drugs, Baiss Bros. & Co., Ltd., 454l.; Thos. Hodgkinson, Prestons & King, 125l.; Willows, Francis Butler & Thompson, Ltd., 321l.; Corbyn, Stacey & Co., Ltd., 25l.; May & Baker, Ltd., 280l.; Burgoyne, Burbidges & Co., 290l. Druggists' sundries, May, Roberts & Co., Ltd., 73l.; Burgoyne, Burbidges & Co., Ltd., 17l.; and Hospitals and General Contracts Co., Ltd., 25l., Bandages and dressings, Burgoyne, Burbidges & Co., Ltd., 15l.; Carnegie Bros., 37l.; Cuxson, Gerrard & Co., Ltd., 19l.; J. F. Macfarlan & Co., 96l.; and Arthur Berton, Ltd., 50l.

Weymouth, Town, Council M. T. France, chargists and

Weymouth Town Council.-M. T. Evans, chemist and druggist, for hospital dressings, drugs, and appliances for the isolation hospital.

Birmingham.

The call for photographic lenses (C. & D., January 20, 34) has caused alarm among amateur photographers. p. 34) has caused alarm among and doubt amateurs should The Kodak Co. suggests that when in doubt amateurs should consult their local photographic dealer.

Two girls were charged at Coventry on January 15 with stealing a silver cigarette-case, valued at 1l. 5s. 6d., from Boots, Ltd. One of the girls was sentenced to two months' hard labour, and the other was fined 45s.

In view of the problems to be faced in the future, a project is on foot to establish, with the co-operation of the City Library Committee and the Birmingham Chamber of Commerce, a commercial or business men's library.

In conversation with a leading Birmingham pharmacist. the opinion was given that the cases of treatment of venereal disease by local pharmacists are few and far between. There are a few quack establishments which advertise, the proprietors of which appear to thrive.

It is proposed that the medical and vaccination work for the Small Heath district shall be undertaken by Dr. Underwood, who will attend at Jenkin Street on Monday, Wednesday, and Friday each week, and that the dispensing work shall be done by a local chemist. The Sparkbrook area is to be dealt with in the same way. A lady wrote a few days ago from Canada to a well-known and old-established chemist's in the northern part of this city for some hiera picra, stating that it is not known where she resides. She added that her acquaintance with it was that her mother and her grandmother, if not her great-grandmother, used to take it, and she desired to keep up the family tradition.

Laverpool.

Dr. Angel, hero-martyr of the London explosion, has a brother in Liverpool, Mr. Lorenzo Valencia Angel, dis-pensing chemist, 241 Great Homer Street. He is an esteemed member of the Liverpool Chemists' Association. Dr. Charles Symes, the veteran who always seems to be

one of the youngest men in the debates at the Royal Institution, is among the hardest workers. Owing to dearth of assistants, he takes noon duty every other Sunday at his pharmacy and full duty each third Sunday, and this in addition to two late nights each week.

addition to two late nights each week.

Arising out of a series of raids on opium-dens in the Chinese quarter of Liverpool (C. & D., January 20, p. 36), the thirty-three Chinamen were convicted on charges of being unauthorised persons in possession of opium. Five principals were each fined 501, four were fined 251., and twenty-four were ordered to pay 40s. and costs.

Mr. J. H. Allan, Breck Road, and Mr. G. V. C. Last, Lodge Lane, have each passed the Second or Conjoint (London) Medical examination. Mr. Allan is following in the footsteps of his father and brother in making pharmacy an avenue to medicine. Eight Liverpool pharmacists are tresent studying medicine at the University of Liverpool. at present studying medicine at the University of Liverpool, a record for any University, while of two others likewise engaged, one joined the Forces last term and another

A Liverpool pharmacist who is still under forty, but who, through early baldness, has long added some years to his credit, tells a story of his experience when young in business. There entered his pharmacy an elderly woman who said she had passed four other chemists' shops because each of the men behind the counter "looked young to make up medicine." With becoming blushes the bald pharmacist, aged twenty-five years, took her prescription, and long enjoyed the confidence of the good woman.

Mr. William P. Evans (President of the Liverpool C.A.) hopes to see a record attendance at the annual meeting

to see a record attendance at the annual meeting next Wednesday. For the six vacancies on the Council the following eleven members have been nominated, but the four indicated have withdrawn: Messrs. Ferriday, Martin S. Hughes, D. Prysor Jones, John Jones (Ferguson & Co.), G. V. C. Last, H. H. Marsden (w.), Prosper Marsden (w.), Ernest Prebble (w.). John H. Robinson (w.), J. G. Wallbridge, and Harold Wyatt. A contest will probably be

Sheffield.

A protest is to be made to each local institution employing an unqualified person as chief dispenser.

The members of the local Society are to give shortly a welcome to the President, Mr. H. G. Williams. A series of meetings is being arranged.

Private E. Northend, of the 1/3 West Riding Field Ambulance, has been awarded the Military Medal. He was apprenticed with Mr. Newsholme and is a native of Sheffield. He edits the "Leadswinger," a journal which his regiment produces.

A strong effort is being made by the Military Representative to secure all men as far as possible who are medically classed for general service. He is now requiring the classification to be supplied him of all assistants who have secured exemption and are not actually managing businesses

The following members of Roots, Ltd., in Sheffield have joined the Colours: Wessrs, Dangworth, Clarkson, Wood, and Haves (Royal Garrison Artillery), Jarvis (R.E., Chemical Section), Cox. De Bell Hardcastle, Chapman, Marshall, and Hitchcock (Infantry regiments), and Burns (R.A.M.C.). These are all assistants. Messrs, Ecob, Wharton, and Cornish, managers, have joined the R.E., Chemical Section.

Miscellaneous.

FIRE.—A fire which broke out over the shop of Boots, Ltd., Mount Pleasant. Tunbridge Wells, occurred on January 15. It was quickly got under, and slight damage was done.

REFORM OF THE CONSULAR SERVICE.—The Foreign Office proposals for the reform of the British Consular service are about to be submitted to a Committee of business experts for consideration. The Association of Chambers of Commerce is to be represented thereon by Mr. D. F. Pennefather, M.P. Lord Robert Cccil, M.P., has intimated that, if necessary, he will be prepared to receive a deputation on the association. the subject from the Association.

ON JANUARY 15 an Army motor-wagon in avoiding another vehicle, dashed into the front of the premises of Mr. T. E. Kingston, chemist and druggist, of Gay Street, Bath, and demolished it.

BEE-CANDY.—The Royal Commission on Sugar Supplies has granted fifty tons of sugar to Jas, Pascall, Ltd., for the purpose of preparing bee-candy. The product is to be coloured pink, and has been medicated with bacterol, which, as mentioned last week, is an antiseptic for which Menley & James, Ltd., are the selling agents.

THEFTS.—At Aldershot on January 15, a soldier, T. Kerrigan, was committed for trial at the Assizes on a charge of breaking into the premises of Allen & Lloyd, chemists and druggists, Aldershot, and stealing a bottle of Wincarnis.—At*Margate, on January 17, Chas. Newton (15) was placed under probation for a year on the charge of stealing from his employer, Mr. Victor J. Woolls, chemist and druggist.

UNEMPLOYMENT INSURANCE.—The Umpire has decided that contributions are payable in respect of workmen engaged in the manufacture of finger-stalls, sponge-bags, bathing-caps, and similar druggists' sundries made of leather, rubber, or rubber-proofed materials (2092X); workmen engaged wholly or mainly in refining saltpetre (2096X); workmen engaged in methylating spirit for use in the manufacture of explosives (2098X).

Institute of Chemistry.—The results of the January examinations are as follows: Four candidates passed the Final (A.I.C.) examination—viz., in the branch of organic chemistry, J. W. Ingham, B.Sc. (Lond.), and E. W. J. Mardles, B.Sc. (Lond.); in the branch of the chemistry (and microscopy) of food and drugs, fertilisers and feeding-stuffs, soils, and water, Alan Haythornthwaite, B.Sc., A.R.C.S. (Lond.), and Ernest Paul, B.Sc. (Lond.).

BRITISH INDUSTRIES FAIR 1917.—A rumour has been current during the last few days that the British Industries Fair 1917 has been abandoned, but we are officially informed by the Board of Trade that it has no foundation in fact, that all preparations for the Fair are well advanced, and that the work of erecting stands has already begun. The total amount of space applied for has again largely exceeded the amount at the Board's disposal.

Technical Classes.—A special introductory medical course in physics, chemistry, and biology for students desirous of beginning their medical studies will be held at University College, Gower Street, London, W.C., and will begin on March 1.—A course of ten lectures on "The Exploitation of Plants" has been arranged in co-operation with the Imperial Studies Committee, to be delivered at University College on Mondays. Among the lectures is one on "The Plant as Healer," and others deal with rubber, cotton, tea, and vegetable dyes.

Insurance Prescriptions.—The Public Health Committee of Bermondsey have considered the proposal of the London Insurance Committee to sample Insurance dispensing. Dr. R. K. Brown, the medical officer, gave it as his opinion that the complicated procedure of the Act renders the examination of medical prescriptions extremely difficult, and in many cases impossible. If the sample is divided into three parts, the quantities as a rule are much too small for quantitative analysis. A far better way would be for the Insurance Committee or the Commissioners to have their own analyst to take samples under agreement with the chemists. Penalties could be provided for the discovery on analysis of any breach of agreement, and no doubt, under such an agreement, special methods would soon be adopted by analytical chemists for the examination of medical prescriptions.

Administering Noxious Drugs.—At the Lancaster Assizes on January 18, Morgan Rhys Davies, chemist and druggist, Preston, was charged with administering noxious drugs to three young women with intent to procure abortion (see C. & D., December 23, 1916, p. 36). The prosecution stated that the medicine and pills supplied were unlabelled, and that it was a serious thing when chemists in this way took advantage of their knowledge of drugs. For the defence it was stated that Davies was a member of the Pharmaceutical Society, and that the medicines supplied were harmless, the mixture being composed of ammonio-citrate of iron and Epsom salts, while the pills were Blaud's iron tonio pills. A draught which he administered consisted of five drops of turpentine and a teaspoonful of sweet spirit of nitre, the turpentine being added to give the impression that the customer was getting something strong. Defendant, in cross-examination, said he took people into his back room and pulled down the blinds because they did not like taking medicine in the presence of others. The jury found prisoner guilty, and he was sentenced to twelve months' imprisonment.

Irish News.

Brevities.

Mr. James Glendinning, Ph.C., has been temporarily appointed compounder to the Londonderry Guardians in place of the late Mr. J. Rainey.

The Belfast Board of Guardians have granted all the apothecaries in their service an additional allowance of 10l. per annum to meet increased cost of living.

At Belfast Police Court last week, a young man named James McMichael was sent to prison for three months for stealing twelve bottles of perfume and a bottle containing wine, the property of Mr. Thomas Finegan, Ph.C., 120 Royal Avenuc. The prisoner admitted that he took these from a store in Kent Street. The goods were worth 1l. 6s. 6d. There were other charges.

A curious situation has arisen in Letterkenny, where different sections of the Board had appointed rival dispensary medical officers. The Local Government Board has refused to authorise the appointment of Dr. McGinley, but a section of the Guardians contend they have no power to do so. At the meeting of Guardians on January 22, Dr. McGinley, payment of whose salary the majority the previous week refused to grant, applied for medicines and medical appliances amounting to 13l. 1s. 2d. for the dispensary. Mr. Edward Lynch proposed that the mcdicines and appliances be ordered. Mr. J. W. Reid proposed that the application be refused. The Chairman (Mr. Henry Gallagher) said Mr. Reid's amendment was not in order. The Chairman then signed the requisition, saying that he would not be a party to leaving the dispensary without medicines.

Scottish News.

Brevities.

Mr. Alexander Fraser, dispensing chemist, High Street, Forres, intimates that he has terminated his forty-six years' connection with the business at this address.

Mr. W. G. Boyd, chemist and druggist, Fortland Street, Kilmarnock, has sold his business there to Mr. Andrew Wood, late manager to Rankin & Borland, chemists, King Street, Kilmarnock. Mr. Boyd has acquired a pharmacy at Hampstead, London, and before leaving Kilmarnock was waited upon by two deputations, who made him handsome presentations. Mr. Boyd has been about twenty years in Kilmarnock.

Dundee.

Mr. John Forsyth, chemist and druggist, at the Pillars, High Street, has had an arm broken by a fall on the ice.

Edinburgh.

Bailie Inman was one of the guests at a civic dinner on January 20, given in honour of the chief of the Russian Military Mission to this country.

A Scottish chemist, just recovering from his wounds, recalls that at Loos, shortly before his company went "over the top," he saw a comrade calmly reading The Chemist and Druggist. Until that moment neither knew that the other had once followed his own calling.

Glasgow.

Professor G. G. Henderson, F.R.S., lectured on "Chemical Industry after the War," on January 17, before the Royal Philosophical Society of Glasgow.

Dr. James Stirton, Glasgow, whose death occurred this week, was an enthusiastic botanist. He was recognised as a Scottish expert on cryptogamic botany, and published many papers on this subject in the Transactions of the Royal Philosophical Society of Glasgow.

Porth

The Western District Committee of Perth County Council reports that warrants for rat virus have been issued to the value of 210!. Up to the present time virus has been distributed by the chemists to the value of 150!. The estimated expenditure on the complete scheme is 350!.

ANALYSTS' REPORTS.—During the quarter ended December 31, 1916, the samples of drugs and oils analysed in Poplar were all found to be genuine.—In Deptford a sample of ground ginger was found to contain excessive mineral matter, 2.18 per cent.—Mr. H. G. Harrison, public analyst for Deptford, is to be reappointed for a further term of twelve months from March 31.

CONTRACTORS TO H.M. ADMIRALTY AND WAR OFFICE.

PICKARD, IVE & RANKIN,

LTD

WALMER CHEMICAL WORKS, NOTTING HILL, LONDON, W.

MAKERS OF

ASPIRIN

B.P.

BY THE ONLY CONTINUOUS PROCESS

ENSURING regular and prompt deliveries of uniform quality, unsurpassed appearance, and excelling the B.P. Standard of analytical test.

The continuous process that we have recently introduced for the successful culmination of the combined efforts of our staff of highly trained research chemists and engineers, and constitutes a very striking advance in the application of scientific method to British chemical production. We have no hesitation in saying that our new method is unique in the annals of Aspirin manufacture, and results in the production of a material equal to the original German make,

We can, therefore, guarantee satisfaction to all inquiries, not only as regards price and delivery, but also because the quality of our material is such as to obviate the harmful physiological after-effects always associated with the taking of the impure drug.

Established Half a Century.



REGISTERED

GRASSHOPPERPills and Ointment

HAVE gained a worldwide reputation for their merit. They are extensively advertised in all parts of the world.

STOCKED by all Wholesale Houses and Drug Shippers, or can be obtained direct from the Proprietors.

RETAILERS desirous of exhibiting Showcards can obtain same, Post Free, by applying to:

ALBERT & CO.

73 Farringdon Street, LONDON, E.C.

Shears' Patent Mulser or Homogenizer

FOR PERFECTING EMULSIONS AFTER THEY HAVE-BEEN MADE IN ANY FORM OF MIXING MACHINE,

AS USED BY MOST LEADING FIRMS

Price £27 10s. each.

A SIMILAR MACHINE, BUT FITTED WITH SPECIAL BACK GEAR, RATIO 4 to 1, FOR HOMOGENIZING VERY HEAVY EMULSIONS,

Price £37 10s. each.

BENNETT, SONS & SHEARS, Ld.

Engineers & Coppersmiths, 43 SHOE LANE, LONDON, E.C.

ALL KINDS DECORATED AND PLAIN

TINS

FOR MANUFACTURING CHEMISTS.

WHOLESALE ONLY.

to EXPORT BUYERS.—We are busily engaged on WAR WORK.

Please record our name and send us your inquiries after the War.

Up-to-date Designs: High-class Printing. Superior Workmanship.

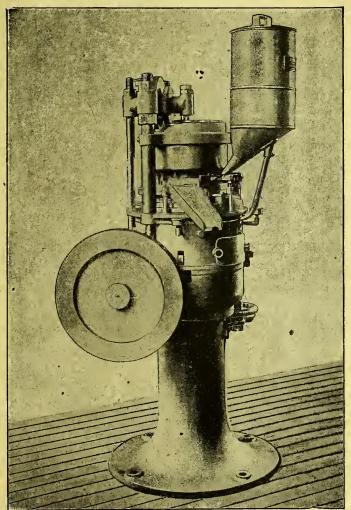
Liverpool Tin Canister Co.

BREEZE LANE WORKS, Ltd. WALTON, LIVERPOOL.

London Office: 7 Wilson St., E.C. Telephone: London Wall 7768.

Tablet Machinery.

No. 1 ROTARY MACHINE.



The Machine for heavy pressure and long-continued hard service.

Output, 700 Tablets per minute.

TABLET MACHINES

In eight sizes and of different types suitable for all classes of work, from Tablets of 2 in. diameter to Hypodermics; also for Cubes, Octagons, Ovals, or any other shape.

SPECIAL PLANT AND OPERATORS

For supplying Punches and Dies for any make of Machine. Orders for these can generally be supplied in one or two days.

OLD MACHINES REPAIRED OR ALTERED FOR MORE MODERN REQUIREMENTS.

THE MACHINE USED BY THE WAR OFFICE CONTRACTORS.

Ointment Mills, Gelatine Pill-Coaters (Vacuum Process), Gelatine Capsule Machinery for Machine and Hand-made Capsules, Automatic Percolating & Distilling Plants, &c. &c.

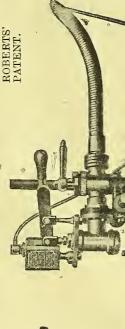
S. W. WILKINSON & CO.,

SEND FOR CATALOGUE.

=== PHARMACEUTICAL ENGINEERS, ==== LITTLE HOLME STREET, LEICESTER.

DE "ADVANCE" CAN AND DRUM FILLER

The last word in PRECISION FILLERS AUTOMATIC



 10

USED BY GOVERNMENT CONTRACTORS.

FILL Kerosene, Glycerine, Castor Oil, Motor Oils, Lubricants, Disinfectants, Sheep Dips, Insecticides, Carbolic Acid, &c. &c. TO APPORTION Water for Bakeries, Syrup for Jam-making, and Liquid Ingredients for other processes.

THE "ADVANCE"

to 10 GALLS. PINH

(HAND-LEVER MACHINES MADE IN 8 SIZES TO FILL FROM 1 LB. TO 1 TON.) The "Advance" is built upon a trolley. It can be readily moved about and connected to Store Tanks. Adaptors can be made to suit existing Tank Taps to the Machine Coupling. The Coupling can be emptied before detaching

FILLS 6 galls. Oll. in 22 seconds. ACCURATE AND RAPID WORK. EASY TO CLEAN,

SOME WELL-KNOWN USERS ARE-

Standardised Disinfectants, Ltd. Jeyes' Sanitary Compounds, Ltd. The Vacuum Oil Co., Ltd. The Burmah Oil Co., Ltd. Premier Oil Extracting Mills Co., Ltd. Messrs.--Wilkinson, Heywood & Clark, Ltd. he Kelvindale Chemical Co., Ltd Nm. Cooper, Son & Nephew. British Oil and Cake Co., Ltd. Anglo-American Oil Co., Ltd. Colthurst & Harding Co.

The Killgerm Co., Ltd. J. Knight & Sone, Ltd. Lever Bros., Ltd. Nobles & Hoare. White's Abol Co., Wm. Simpson, Ltd Joseph Lyons, Ltd. Stanley Earle, Ltd Blundell Spence, McDougall, Ltd. Brotherton, Ltd.

AND OTHERS

NOTE ONLY ADDRESS-

ROBERTS' PATENT FILLING MACHINE

33 Roundcroft Street, BOLTON, LANCS,





CHEMICAL PLANT

FOR NEARLY ALL INDUSTRIES IN

STEEL, CAST IRON, BRONZE AND SPECIAL ALLOYS

TANTIRON

ORGANIC & SYNTHETIC PRODUCTS,
SALICYLIC ACID & SULPHONATED,
CHLORINATED & ACETYLATED COMPOUNDS.
PLANTS FOR NITRIC, SULPHURIC &
HYDROCHLORIC ACID.

LENNOX FOUNDRY COX, LTD.

GLENVILLE GROVE, NEW CROSS,' LONDON, S.E.

Telegrams: "Equifex Dept., London." Telephone: New Cross 770.



A FEW of the MANY PATTERNS of GARDNER'S PATENT

Used for everything "SIFTABLE" or everything "MIXABLE."

STANDARD PATTERN combined Machines (Figs. 1 to 4) will at one operation thoroughly Sift and Mix all Dry Powders, and reduce to powder and sift any that contain lumps. Largely used for Drugs, Chemicals, Acids, Baking Powder, Selfraising Flour, Cattle Foods, Sugar, Colours, Sherbet, Coffee, Flour-blending, Disinfectants, and all kinds of Medicated Powders. Also for the preparation of High Explosives.

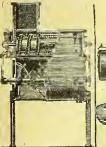


Fig. 1. Sizes for Hand Use.



Fig. 2 Power Sizes with Pullevs.



Fig. 3.
Pulley and Gear Drive The type recommended for Power users.



Fig. 4. Large Capacity Power driven Machines.



For Counter use and small quantities.



CARDNER'S Patent "IRAPID" SIFTER. MIXER, AND CRUSHER.

Fig. 6.

For breaking down large and hard lumps in Sugar, Acids, Chicory, Salt, Colours, Soda, small enough to be reduced, sifted, and mixed afterwards.



CARDNER'S Patent "RAPID" SIFTER, MIXER, AND ESSENCE SPRAYER.

Fig. 7.

For adding Liquids, Essences, Flavourings, Liquid Colours, Oils, &c., to Sugar, Acids, Flour, Face Powders, Disinfectants, Seasonings, and many kinds of Powders and Crystals during Mixing.



Fig. 8. Open Bottom Pattern.

GARDNER'S Patent "RAPID" SIFTERS (Figs. 8 to 12) (Power Sizes) sift any kind of Dry Powders, and reduce to powder any that may be lumpy, such as Tartaric Acid, Bicarbonate of Soda, Magnesia, Arrowroot, Sugar, Flour, Colours, Sheep Dip, &c.





Fig. 10.

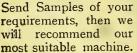


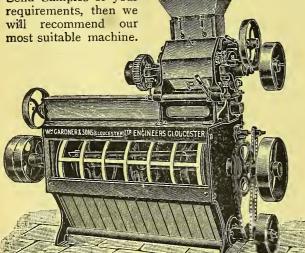
Fig. 11.



Fig. 12.

This is one form of





CARDNER'S PATENT CRINDING AND DRESSING MACHINE.

For Sugars, Invalids' and Infants' Foods, Paint, Colours, Crystals, Drugs, &c.

We make these Mills for Sugar, capacity from ½ cwt. per hour upwards, and any grades of Icing and Castor can be obtained at one operation.

WE ALSO MANUFACTURE

DISINTECRATORS, DRUM SIEVES, SPICE STAMPERS, DECORTICATORS, FRICTION HOISTS, and various other types of machinery.

DRYING & SIFTING MACHINES

for Explosives, Chemicals, &c.

ALSO STEAM BOILING PANS.

Write for complete No. 25 Catalogue to

& SONS (GLOUCESTER), LTD., ENGINEERS, GLOUCESTER.

Cables and Telegrams: "GARDNER GLOUCESTER."

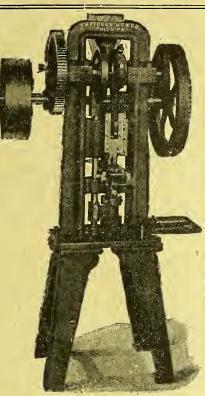
Colonial Agent: Mr. J. L. LENNARD Telephone No. 117.

Pharmaceutical Machinery.

Single or Multiple Punch Machine, designed formaking Large Tablets, or a big quantity of Small Tablets. It operates from one to five punches at a time, depending on their size, and produces from 80 to 400 tablets a minute. The machine compresses five Tablets at once any size up to 32 in in dia, four Tablets from 4 to 75 in., three Tablets from 3 to 76 in., and one Tablet any size up to 15 in. in dia. Two sets of punches and dies supplied with each

Floor Space: 26 by 30 in. Height: 5 ft. Weight: 700 lbs. Speed: 325 revs. per min.

"M"
TABLET
MACHINE.



The "O" TABLET MACHINE

(Power Driven)

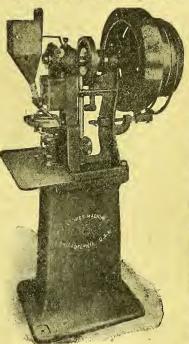
For general Tablet work the "O" Machine cannot be beaten.

Will compress any size Tablet up to §" dia. at a speed of 120 per minute.

Three sizes of Punches and Dies with each machine.

All adjustments can be made whilst the machine is in operation.

Made throughout of the best materials.



STOKES AUTOMATIC WATER STILL

THE IDEAL STILL FOR EVERY DISPENSARY.

NO STEAM REQUIRED.

ONLY GAS & WATER.

Output $\frac{1}{2}$ to $\frac{2}{3}$ gallon per hour.

Best and most efficient Still ever invented.

No Licence necessary.

Send P.C. for full particulars.



"EUREKA" TABLET MACHINE

Has been proved to be <u>THE BEST</u>.

Used exclusively in all the leading Pharmaciee,

Dispensaries, Hospitals, &c.

Its operation is

mastered in a

An output of any size Tablet (up to 16 gray)

IT IS SO

SIMPLE.

few minutes.

Cannot get out of order with ordinary care.

An output of any size Tablet (up to 16 grs.) of 100 per minute.

Two sizes of Punches, and Dies with each Machine.

Tablets
made on
the
"EUREKA''
cannot be
excelled.

THE MOST EFFICIENT HAND MACHINE. Complete Catalogue and Lists forwarded on receipt of P.C.

THOMPSON & CAPPER, Ltd.

Sole Agents for F. J. Stokes Machine Co.,

Manesty Buildings, College Lane, LIVERPOOL

Telephone: Royal 2060.

ESTABLISHED 1843.

Telegrams: "Sanitas Liverpool."



On the List of Government Contractors, Telephone No.: The Crown Agents for the Colonies, etc. 1831 Hop.

TRADE MARKS

Telegraphic Address:
"EKLIPS, LONDON"
ABC Code, 5th Ed.

Medals and Awards:
London, 1881. Vienna, 1883. Calcutta, 1884. Chicago, 1893



CINCHONA TONIC

"EKLIPS" Brand.

HALF-PINTS

17/6

DOZEN



PINTS

30/-

DOZEN

One of the very best MEDICATED WINES,

containing, in addition to Quinine, Cinchonidine and other alkaloids, and presenting in a permanently soluble form, ALL THE COLLATERAL PRINCIPLES (Cinchotannic Acid, &c.) by which the medicinal properties of the alkaloids are well known to be enhanced.

H. E. STEVENSON & CO.

122 GREAT SUFFOLK STREET, LONDON, S.E.



On the List of Government Contractors, The Crown Agents for the Colonies, etc. Telephone No.:

Medals and Awards:

LONDON, 1881. VIENNA, 1883. CALCUTTA, 1884. CHICAGO, 1893.



SYNTHETIC OTTOS

"Zinyl" Brand (Regd.)

TRUE SYNTHETIC PRODUCTS.

To Buyers who have not hitherto bought these Synthetic Ottos their use will come as a revelation, and as in most instances the Ottos are actually stronger than the essential oils they are intended wholly or partially to replace, they are most economical in use, while their similarity to the actual flowers is surprising. A feature of the "Zinyl" Brand is the natural delicate flower odour, free from the very objectionable and crude characteristics of cheap synthetic perfumes.

The Synthetic Otto of Neroli, "Zinyl" Brand, for instance, used in the proportion of \(^3\) oz. to the gallon of Spirit, gives an excellent basis for Eau de Cologne, and we suggest a reference to "Pharmaceutical Formulas" for many admirable forms.

The present price of the Otto is 8/6 oz., against the average cost of fine Oil of Neroli about 14/- oz., and 5 drachms of the Synthetic Otto are equal to one ounce of the natural oil.

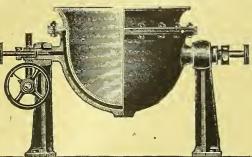
ROSE. One of the finest and most delicate Synthetic Ottos on the market. The "Zinyl" Brand passes the most discriminating tests, and is almost indistinguishable from genuine. Otto, and though much stronger, costs but a fraction of the price

"A triumph of modern Synthetic Chemistry."—"C. & D." in 1912.

H. E. STEVENSON & CO.

Manufacturing Chemists and Wholesale Druggists,

122 GREAT SUFFOLK STREET, LONDON, S.E.



Suitable for all Temperatures and Pressures.

DANTO ROGEAT &

33-39 Chemin des Culattes, LYONS, France.

Suppliers before the War to the largest European manufacturers of Chemical Products.

Write for Price List to Sole Representative:

H. SLOOG, 51 Anson Road, Cricklewood,

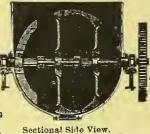
Tel.: Willesden 1752.

LONDON, N.W.

NEW PATENT

Automatic Self-Cleaning. Lowest Possible Driving Power. Lightning Mixing. Rapid Exhaust. All sizes, to mix from 2 lbs. up to 6 tons.

W. ROWLANDSON & CO., MIXING & GRINDING SPECIALISTS, BOUNDARY ST., LIVERPOOL.



The Northern Tin Canister Works.

6 Mersey Street.

LIVERPOOL.

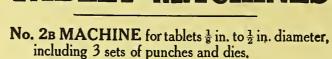
We manufacture for the paint trade in all its branches-Decorated and Plain work.

TIGHT SEAMING & VARNISH BOTTLES A SPECIALITY.

Patent Air Tight Slip-lid Tin for Export.

Prompt Deliveries Assured.

TABLET MACHINES



No. 3B MACHINE for tablets $\frac{7}{32}$ in. to $\frac{5}{8}$ in. diameter, including 3 sets of punches and dies.

(This machine has a capacity of 125 tablets per minute.)

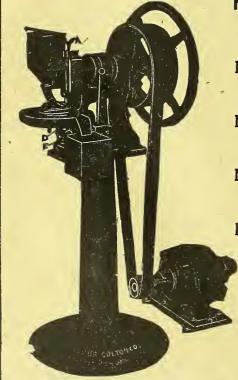
(This machine has agcapacity of 100 tablets per minute,)

No. 4 MACHINE for tablets $\frac{1}{2}$ in. to $\frac{3}{4}$ in. diameter, including I set of punches and die, A massive machine of great power. (Capacity 90 tablets per minute.)

No. 5 MACHINE for tablets up to 2 in. diameter, including I set of punches and die. A still heavier machine than No. 4. (Capacity 50 tablets per minute.)

> Complete Pill Making Plants. Gelatine Coaters. Collapsible Tube Filling and Closing Machines.

JOHN J. GRIFFIN & SONS, LTD., Kingsway, London, W.C.



SAVE 3/- PER GALLON

BY BUYING

GUARANTEED GENUINE

NEWFOUNDLAND NON-FREEZING MEDICINAL COD LIVER OIL

OF 1916 MAKE.

Highest possible quality in smell, taste and colour, comparing most favourably with the finest Norwegian. Manufactured from the finest fresh Cod Liver on same day as fish caught.

WHOLESALE ONLY.

Kindly write for sample to

JOB BROS., Manufacturers, Tower Building, LIVERPOOL.

Telegraphic Address: "JOB LIVERPOOL."

Tel. 1039 CENTRAL.

And of ST. JOHN'S, N.F.

Established 1780.

BRITISH MADE

WE CAN GIVE DELIVERY OF THE

BEST WINTER LINE.

'SYMPHELITE' Patent Spirit Stoves

Absolutely Safe. No Evaporation in Stock: Cheapest in use. No Wicks. Renewable indefinitely with Methylated Spirit or PETROL. NOTE.—If upset the "Symphelite" is quite safe. It will either extinguish itself or remain burning on its side like this.

GREAT DISCOVERY. THE ONLY STOVE THAT WILL BURN PETRO of Solidified Spirit,

The New Bunsen Stand burns Petrol without Smoke or Danger.



PRICES-	THE	"SY	MPHE	ITE"	ST	OVE.	E.A	сн.
No, ta STOVES	š			••••		3d. and		
Ditto, Plated			•••	•••	2s.	9d. and	1 3s.	
TRAVELLING S		•••		•••		•••	•••	2s.
Ditto, Plated S		•••	•••	•••		•••	6s.	
Ditto, Polished	1 Copp	er	•••	***		•••	12s.	6d.
Model de Luxe	Sets	•••				14s.	and	17s.
SHAVING SETS	3		•••	•••	•••	•••	1s.	6d.
Ditto, Plated							2s.	6d.
PICNIC BOILER	S			5s.	9d	6s. 6d.	. 7s.	6d.

BRITISH OWNED



IF UPSET QUITE SAFE.

NO LIQUID.

NO SPILLING.

LARGELY USED IN THE TRENCHES.

Also for Hospitals, Nursing, Motoring, Boating, and Household purposes.

C	OMPA	RISO	N.			cost.
Solidified Spirit "SYMPHELITE"—	Boils 2	2 pints	in 34	minutes	•••	$2\frac{1}{2}d$.
With Methylated Spirit	- 11		17	,,		$\frac{3}{8}$ d.
,, PETROL	,,,		9	,,		₽d.

A GREAT LINE FOR CHEMISTS & FACTORS.

Trade Discount 33\frac{1}{3}\%, and 2\frac{1}{2}\% one month. \(\bar{\pi} \)
EVERY MOTHER NEEDS A "SYMPHELITE" STOVE.

WORKS-

THE SYMPHELITE COMPANY

SHANKLIN, ISLE OF WIGHT.

LONDON OFFICES-77 CRAVEN HOUSE, KINGSWAY, W.C.

BRITISH CAPITAL

Agents wanted for the Midlands and West of England.
A great Export Line for all Countries.

BRITISH LABOUR

"DAISY" TABLETS



SPECIAL WHOLESALE PRICES.

Quantities of not less than 1 dozen tins 13/- per dozen net.

" " 12 " **12/-** "

Each tin contains 25 Tablets.

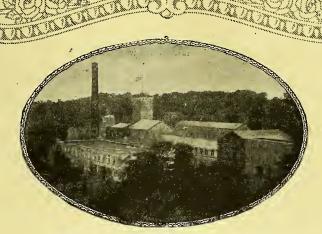
Minimum Retail Selling Price, 1/3 per Tin.

ORDER YOUR SUPPLY NOW.

DAISY LTD. Mammoth LEEDS.

ESTABLISHED 1893.

TELEGRAMS : "DAISY LEEDS."



The Laboratories of Thomas Kerfoot & Co.

Kerocain

(KERFOOT'S NOVOCAIN).

The Local Anaesthetic which is free from risk.

EROCAIN is chemically, physiologically and therapeutically identical with German Novocain—it possesses in full measure those properties of low toxicity, non-irritation, complète sterilisability, rapid penetration, immunity from habit-creation and compatibility with Adrenene which have made Novocain the local anaesthetic of choice. Kerocain is manufactured and standardised in our laboratories at Bardsley Vale, under licence from the British Board of Trade, and is tested under arrangements approved by the Board.

As a dental analgesic, Kerocain is the embodiment of Safety and Economy.

Kerocain Dental Tablets and Solution (E) are now available in quantity.

Samples and prices on request.

THOMAS KERFOOT & CO., BARDSLEY VALE, LANCASHIRE, & Bardsley House, London, England ESTABLISHED 1767.

COPYRIGHT

Telegraphic Address: "IPECAC LONDON."

GOLD MEDAL.

Telephone No.: HOP 4362 (3 lines).

XVIIth International Congress of Medicine, London, 1913.

ESTABLISHED 1833.

Contractors to His Majesty's Government; The India Office; The Crown Agents for the Colonies; various Foreign Governments, and the Principal London and Provincial Hospitals.

Wholesale Druggists

BAISS

Manufacturing Chemists



BAISS BROTHERS & COMPANY, LTD., invite inquiries from buyers of FINE CHEMICALS, DRUGS, TINCTURES, ESSENTIAL OILS, &c. The "get up" and packing of their goods are unequalled, and they make a special study of the requirements of the various markets of the world.

EXPORT equally with HOME TRADE.

Baiss Brothers & Company, Ltd.,

Manufacturing Chemists, Wholesale Druggists, Distillers of Essential Oils, Makers of General Pharmaceutical Preparations and Surgical Instruments.

EXTRACTS PREPARED IN VACUO for which inquiries are solicited.

Grange Works, 174, 175, 176 Grange Road, Bermondsey, London, S.E.

Drug Mills: GRANGE WORKS. Drug & Herb Farm: CARSHALTON, SURREY.

BAISS BROTHERS



& COMPANY, Ltd.

FOR

FINE CHEMICALS OF ALL DESCRIPTIONS.
STANDARDISED TINCTURES AND EXTRACTS.
CONCENTRATED INFUSIONS AND DECOCTIONS.
DISINFECTANTS.

POWDERED DRUGS, STANDARDISED.

COMPRESSED TABLETS.

CONCENTRATED SOLUBLE ESSENCES.

CHEMISTS' PACKED SPECIALITIES.

DRUGGISTS' SUNDRIES.

HOSPITAL EQUIPMENT.

SURGICAL INSTRUMENTS AND DRESSINGS.

CHEMICAL FOOD.

EXTRACTS, SOLID AND LIQUID.

Specialities of the Firm.

ELIXIR SENNÆ LEGUM. (BAISS).

EMULSION OF COD LIVER OIL. (BAISS).

(Gold Medal awarded XVIIth International Congress of Medicine, London, 1913.)

GLYCEROL HEROIN C. TERPINHYDRAT. (BAISS).

LIQ. COLCHICINÆ SALICYL. (HOPKINSON'S).

LIQ. SANTAL CO. (BAISS).

MIST. BISMUTHI AROMAT. (BAISS).

MIST. TUSSI RUB. CONC. 1—7. (BAISS).

SYRUP. FERRI PHOSPH. CO. (BAISS).

SYRUP. GLYCEROPHOSPHATUM. (BAISS).

SYRUP. HYPOPHOSPHIT. CO. (BAISS).

PRICE LISTS IN VARIOUS LANGUAGES.

BAISS BROTHERS & COMPANY, Ltd.

Wholesale and Export Druggists, Manufacturing Chemists and Makers of Surgical Instruments,

Contractors to His Majesty's Government; the Crown Agents for the Colonies; various Foreign Governments; and the principal Hospitals and Institutions at Home and Abroad.

Grange Works, 174, 175, 176 GRANGE ROAD, BERMONDSEY, LONDON, S.E. Drug & Herb Farm: CARSHALTON, SURREY. Established 1833.

ERUMS

Of the MERIEUX INSTITUTE, LYONS

The various products are prepared under the immediate supervision of M. Merieux (late of the Pasteur Institute) by the most modern and approved scientific processes, and submitted to the inspection prescribed by French Law.

In order to overcome the great difficulty of keeping Serum with its full activity unimpaired and free from other deterioration, the "Inalter" Vial has been placed on the market. It can be kept for any length of time, and when required the doctor is enabled, in the most simple manner and without trouble, to prepare a fresh liquid serum ready for use-

DIRECTIONS:

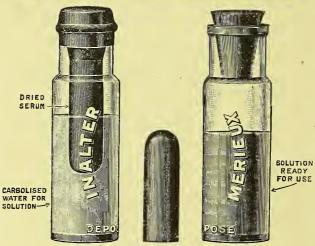
Fig. 1, A, represents the "INALTER" Vial—with U tube inside containing 1 gramme of dried serum and 9 c.c. carbolised water (1 gramme dried serum = 10 c.c. liquid serum). The rubber plug which seals the Vial and the U tube is withdrawn and after the contents of the tube have contents of the tube have been emptied into the solution, the plug is replaced in Vial, and the contents quickly dissolve. The freshly prepared serum is now ready for use as in Fig. 1, B.

The following Serums may be obtained in the " Inalter" Vial.

ANTISTREPTOCOCCIC.

ANTITETANIC.

ANTIDIPHTHERITIC.



BEFORE REG! DESIGN Nº 5 43 434 DILUTION

ADVANTAGES:

The Contents keep in-definitely.

The preparation of the Serum is speedy, simple and perfectly aseptic.

Ready foruse whenever requi ed.

The freshly prepared serum has full potency and activity.

". . . It is important to note that the adoption of note that the adoption of this Vial places at the dis-posal of the medical man a supply of active liquid serum, ready for use at any time."—Lancet, Dec. 2/16.

This system is de-". . This system is designed to ensure the serum keeping indefinitely, so that it may be relied upon as being aseptic, active and of full potency when required. The device is ingenious and appears likely to prove efficient."

British Medical Journal.

Jan. 13/17.

Fig. 1. We also supply these Serums in the usual liquid form.

SPECIAL FORMS:

"PARA-TETANINE." Antitetanic Dustin; Powder. A prophylactic dressing. ANTIDIPHTHERITIC LOZENGES. Slowly dissolved in the mouth. Prophylactic. ANTIDIPHTHERITIC TOPICAL APPLICATION. Used by spray or brush for Coryza or suspected condition of the throat.

R VETERINARY USE

The following Serums can be obtained in the "Inalter" Vial or the usual figuid form:

Mallein, Tuberculin, Antitetanic, Antistreptococcic. Polyvalent Serum for Distemper in Dogs.

Literature and Price List on request.

THE ANGLO-FRENCH DRUG CO., Ltd., Gamage Building, Holborn, E.C.

(Late M. BRESILLON & CO.)

Phone: HOLBORN 1311.

Telegrams: "AMPSALVAS."

AMPSALVS. For the instantaneous production of "914" aseptic solution, aseptic filtration, and direct aseptic entry into syringe. Simple, Safe and Economical.

CALYL. Salvarsan and Neo-Salvarsan substitute (Intravenous or Intramuscular), equally effective on Spirochætes and Trypanosomes, but free from neurotropic and congestive action.

HEGTINE. Anti-syphilitic of low arsenic percentage. Good results in intractable syphilis. Administered by Intramuscular Injection; also in Pills

HECTARGYRE. Combined arsenic and mercury treatment of syphilis; especially recommended after a course of Galyl. Administered by Intramuscular Injection; also in Pills

Stable suppositories of "606." A very simple method for the administration of Ehrlich's "606," giving excellent results. Each in hermetic metallic case for hot climates.

MERSALV. A fine mercurial cream. Contains 10 per cent. metallic mercury. A none greasy preparation, entirely absorbed by the tissues. Special packing for hot climates.

Specially successful as an injection for acute or chronic gonorrhœa.

Electro - Chemical in various forms.

A colloidal in various forms.

Painless.

Colloidal Iodine. Specific for pneumo-coccal disease. Simple, infective or broncho-pneumonia, pulmonary congection, &c. Administered by capsules. Gives off free Iodine; does not produce Iodism. Also for external application.

Assimilable Colloidal Sulphur, entirely absorbed.

Indicated in chronic mucous affections, rheumatism, intestinal intoxication, skin diseases, mercurial and lead poisoning, &c.

GUPRASE. Specially prepared Chemical Colloidal Copper for Cancer. Has given most encouraging results in a good number of cases. Non-toxic; no undesirable effects.

CYTO-SERUM. Intensive. Painless arsenic medication (subcutaneous) for pulmonary tuberculosis, syphilis, trypanosomiasis, malarial cachexia, neurasthenia, pernicious anæmia.

DIABETIFUGE. A successful anti-diabetic. Gives most satisfactory clinical results (formula given). Administered in cachets.

MICHEL LEGROS. Outfit for the treatment of SNAKE BITES and STINGS of Venomous Insects. Successfully tried in cobra and other venomous snake bites.

ENDOGRISINES. Organo - therapy. Extracts prepared at freezing - point and *in vacuo* of internal secretory glands, BILEYL, ORCHITINE, MAMMA, SPLEEN, &c.

SCOPOLAMINE. Also In 1 c.c. Ampoules. for TWILIGHT SLEEP.

TAMPOVULES. A complete Gynæcological Dressing, consisting of a soluble ovule combined with a vaginal tampon. Each in hermetic metallic case for hot climates.

URASEPTINE. Composed of Urotropine and Helmitol. A powerful urinary antiseptic. Dissolves and eliminates uric acid.

Copper. (See Iodargol and Iodeol.) Gold, Platinum, Selenium,

COLLOIDS (Chemical). See Biosulfol, Cuprase.

LITERATURE AND CLINICAL REPORTS ON REQUEST.

The above Preparations may be Exported without Licence.

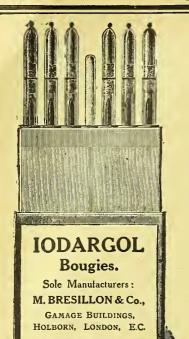
THE ANGLO-FRENCH DRUG CO., LTD.

(Late M. BRESILLON & CO.)

GAMAGE BUILDINGS, HOLBORN, LONDON, E.C.

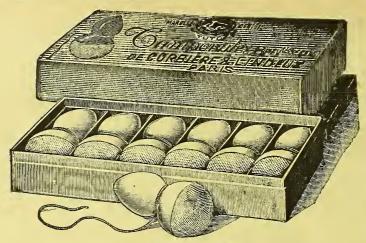
TELEGRAMS-"AMPSALVAS LONDON."

TELEPHONE-HOLBORN 1311.



BOUGIES.

Each contained in hermetically sealed glass tube in which it has been sterilised. Any principle per box of 6 tubes, net 4/-.



TAMPOVULES.

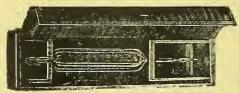
Complete gynæcological dressing consisting of a soluble ovule combined with a vaginal tampon. Any principle. Sold in boxes of 6 Tampovules, per box 4/- net.



Each 1 c.c. 2/6; each 2 c,c. 3/6; each 5 c.c. 4/6; each 10 c.c. 5/6; each 20 c.c. 7/-

ALL-GLASS 9
DELTA
URETHRAL
SYRINGE.
Each 2/-





HYPODERMIC

PREPARATIONS

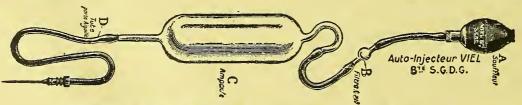
IN AMPOULES.

Any Principle.

In boxes of 12 Ampoules of 1 c.c.; and also in boxes of 50, 100, or 1000.

ABSOLUTELY ASEPTIC.

LOWEST PRICES.



Physiological Serums in Ampoules of 250 and 500 c.c.

GLASS AMPOULES.

(Empty.)

All sizes and shapes promptly supplied.



THE ANGLO-FRENCH DRUG CO., LTD.

(Late M. BRESILLON & CO.),

Gamage Buildings, London, E.C.

Telephone: 1311 HOLBORN.

Telegrams: "AMPSALVAS LONDON."

ine gives marvellous results in the operations of extraction dental anæsthetisa tion, in pulpectomy and cases of period ontitis.

Odontology: Professor Choquet

CAINE SURRENINE

"Since the com-mencement of hos-tilities we employ Neocaine Surrenine Corbière which has given us every satis-faction."

Pouchet & Sourdat: Regional Anæsthesia.

A PERFECT COCAINE SUBSTITUTE OF LOW TOXICITY.



Neocaine is a synthetic product of French manufacture. It is in form of a racture. It is in form of a white powder, belongs to the Benzoyl Dimethyl Ethyl series and is easily soluble in cold water.

Neocaine possesses all the therapeutical qualities of Cocaine (excepting as an exhilarant) but only 1-7 of its toxicity.

The Anæsthetic power of Neocaine is quite equal to that of Cocaine; also its duration and rapidity of action.

APPLICATIONS.

- I. LOCAL ANÆSTHESIA BY INFILTRATION.
- 2. RECIONAL ANÆSTHESIA.
- 3. RACHIANÆSTHESIA.
- 4. ANÆSTHESIA BY EXTER-NAL APPLICATION.
- 5. OINTMENTS, GARGLES, SNUFFS, LOZENGES, &c.

Neocaine does not, like Cocaine exert a vaso-concardiac tonic. It produces no local irritation if the injection is made aseptically.

COMPOSITION OF NEOCAINE-SURRENINE,

Pure Neocaine 1 gramme Borated Adrenalin Chloride (Takamine) 2 milligrammes

Pure Neocaine alone is also supplied.



Fig. 2.

Neocalne-Surrenine may be obtained in :-

- *5 centigramme doses, each in sterilized double capsule; easily pulled apart (Fig. 1 E.)

 * Tube containing 10 5-eg. doses of the powder in capsules (Fig 2)

 Tube containing 5 grammes of the powder.
- Not suitable for export to hot, humid climates; for this purpose, powder in tubes or solution in ampoules is recommended.

READY-PREPARED SOLUTIONS IN AMPOULES.

- Ampoules of 1 cc. each containing 5 cg. of Neocaine-Surrenine (solution 1 in 20).
- Ampoules of 1 cc. each containing 22 cg. of Neocaine-Surrenine (solution 1 in 40).
- Ampoules of 2 cc. each containing 5 cg. of Neocaine-Surrenine (solution 1 in 50).
- Flask of 10 ccm. with patent stopper, containing sterile solution of Neocaine-Surrenine (1 cc.= 5 cg. solution in 20).

FOR EXTEMPORANEOUS SOLUTIONS.

Ampoules-matrasses of isotonic sterile serum (1, 5, 10, 20, 50 and 100 cc.) for adding the Neocaine-Surrentne powder.

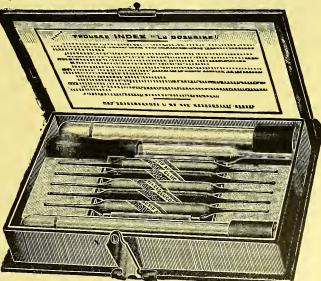
FOR URINARY ANALYSIS.

OSURINE

COMPACT — RAPID — RELIABLE — EXTREMELY CONVENIENT.

The Reagents are in hermetically sealed ampoules and always reliable.

When ordering outfits or Refills kindly state whether "INDEX." "A" or "D,"



There are three forms of the "Dosurine" Outfit:

"INDEX" for detecting Sugar and Albumin (not quantitatively.)

"A" for the estimation of Albumin.

"D" for the estimation of Sugar (Glucose).

These preparations may be exported without licence. Literature and Price List on Application.

The ANGLO-FRENCH DRUG CO., Ltd., Gamage Building, Holborn, London, E.C. Telegrams "AMPSALVAS." Telephone: Holborn 1311. (Late M. BRESILLON & CO.)



APRÈS L'A GUERRE.

After the War we shall be able then to utilize all our abilities and materials to compete with enemy nations; we shall then be in a position to supply, not only equivalents, but products superior to those that were previously developed and sold by our enemies, and we will instance a few of them:

Acetosal Adrenine Alpine Snow Hypnogen Iodsam Laxoin Metramine
Renaglandin
Thymoform
Thymotussin
Wahine
Wychodyne

Specialities of ours they have never been able to imitate, or compete with, are Bipalatinoids, Ferrous Carbonate and Combinations; Pulverettes, the Ideal Powder Pill, or Tablet. They have a firmly established Continental sale and reputation entirely established by their merits. The Oppenheimer Products have gained Gold Medals and highest awards throughout the world.

SAMPLES AND PRICES UPON REQUEST.

OPPENHEIMER, SON & CO., LTD., 179 Queen Victoria Street, LONDON, E.C.

ENTIRELY BRITISH HOUSE SINCE FOUNDATION.

Branches: Sydney, Christchurch, Toronto, Capetown, Bombay, Milan, etc.

CABLES: "OPERATOR LONDON."

FERROUS CARB. EARSENIC CARB. 2 ALOES FERROUS CARB a QUININE FERROUS CARB E CASCAR CARB ć NUX FERROUS PHOSPH FERROUS PHOSPH **EQUININE** Price 15s. net; Chemists, 13s. 6d. net, post free (Inland), 14s. 1d.

Published by J. & A. CHURCHILL, 7 Great Marlborough Street, London, W.

An up-to-date Review of over half-a-century's progress in THERAPEUTICS, CHEMISTRY and PHARMACEUTICS.

THE CHEMIST AND DRUGGIST says: "It maintains its unique position as a NATIONAL work of

THE PHARMACRUTICAL JOURNAL says: "A COMPANION, in the true conce of the word, to the official book."

THE PERFUMERY AND ESSENTIAL OIL RECORD says: "It cannot be too highly commended. It is invaluable to ANALYSTS and MERCHANTS alike."

Descriptive leaflet gratis on application.

Squire's Standard Preps.

Cypical Terperoin Cherapy.

SQUIRE'S preparations of HEROIN and TERPENE HYDRATE, of which the following are typical:-

TERPEROIN ELIXIR PASTIL. TERPEROIN CO.

with CODEINE CODEINE ELIXIR FORT. **CLYCERO-TERPEROIN**

Corisol Compounds.

SQUIRE'S preparations of the SUPRARENAL CLAND or of its active principle ADRENALIN:—

LIO. SUPRARENAL HÆMOSTAT. INHALANT

POWDER

STERILETTE ADRENALIN **ENICOL ADRENALIN**

Cinnamal Compounds.

SQUIRE'S CINNAMAL COMPOUNDS, preparations of CINNAMIC ALDEHYDE, of which the following are typical:

CINNAMAL with QUININE with QUININE and ARSENIC CINNAMINT TABS.

Ferruginous Fluids.

SQUIRE'S fluid preparations of HÆMOCLOBIN containing ORCANIC IRON and MANCANESE, including:—

FERMANGLOBIN ,, with ARSINYL " " NUX VOMICA FERMANCLOBIN with CACODYL. MALTOCLOBIN

Squire's Sibka Series.

SQUIRE'S series of LECITHIN preparations, introduced under the distinctive and registered title of SIBKA :-

LIQUID SIBKA

LECISOL

SIBKA CHOCOLETTES

Elegant Elixirs.

SQUIRE'S series of AROMATIC ELIXIRS containing various Organo-Therapeutic principles in permanent solution :-

ELIXIR HYPOPHYSIS CEREB. (SQUIRE)

COLLOID (SQUIRE)

THYROIDEI (SQUIRE) "

OVARIAN EXTRACT (SQUIRE)

Premier Phosphate Preparations.

SQUIRE'S series of PHOSPHATE, CLYCEROPHOS-PHATE, and HYPOPHOSPHITE products :-

FEROCAL.

CLYPHOCAL

with FORMATES

HÆMOGLOBIN

" MED. RUB.

,, STRYCHNINE

CLYPHOCAL ELIXIR PETROLEUM EMUL-

SION of the HYPO-

PHOSPHITES

SYR. HYPOPHOS. CO.

Squire's Mercurial Preparations.

SQUIRE'S series of special MERCURIAL PREPARA-TIONS for intramuscular injection :-

MERCURIAL CREAM (SQUIRE)

STERILETTE

CALOMEL CREAM (SQUIRE) STERILETTE MERCURY SALICYLARSENATE

Active Aromatic Aperients.

SQUIRE'S series of aperient preparations containing CASCARA or SENNA either individually or combined :-

KASAK ELIXIR CAPSULES KASENA CAPSULES SENNINE

KASENA ESS. SENNÆ AROMAT.

Telephones: Paddington 96 Mayfair 8479. Gerrard 8485.

Telegrams:
"Squire, Wesdo, London."

SQUIRE & SONS, Ltd. 413 Oxford St., London, W.

Window-Dressing in Winter

SUGGESTION No. 1



Apply to
10, Snow Hill
Buildings,
LONDON,
E.C.

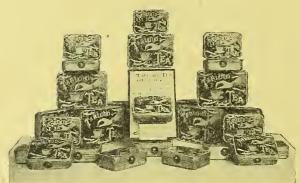
TRADE STABLOTTO BRANC

Tea .

THERE is a great demand for 'TABLOID' TEA for sending out to men at the front, as well as for use at home. It is well worth while, therefore, to devote a shelf constantly to displaying this product. The photograph below is inserted as a suggestion to save you the time and trouble of evolving a display.

'Tabloid' Tea is supplied in tins of 100 at 10/0 and 200 at 20/0 per dozen tins.

'Tabloid' Tea, Special Blend, is supplied in tins of 100 at 15/0 and 200 at 30/0 per dozen tins. Prices subject.



BURROUGHS WELLCOME & Co.

See also the three following pages

SHOWCARDS ON REQUEST

> Apply to 10, Snow Hill Buildings, LONDON,

Window-Dressing in Winter

SUGGESTION NO. 2



I ET the public see that you stock this product. They may know that it can be obtained at any Pharmacy, but they buy where they see it displayed. An occasional display is the best means of attracting a good share of the enormous business in this 'KEPLER' product. It should be in your window now because the season is at its height. photograph below shows an effective use of a small stock.



Kepler' Cod Liver Oil with Malt Extract is supplied in bottles of two sizes at 26/0 and 45/0 per

Prices subject

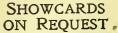


See also the following and preceding pages

dozen bottles, respectively.

Window-Dressing in Winter

SUGGESTION No. 3



Apply to
10, Snow Hill
Buildings,
LONDON,
E.C.

'HAZELINE

CREAM

WAR has joined forces with the weather and intensified the need for 'HAZELINE' CREAM. Hosts of women are now engaged in work which will ruin the beauty of the hands and complexion unless a protective emollient is used regularly. 'Hazeline' Cream is a favourite. It sells readily for this purpose. Window space given to 'Hazeline' Cream pays well. The arrangement shown in the photograph below may help you in setting out your window.

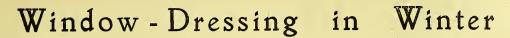
'Hazeline' Cream is supplied in collapsible metal tubes of two sizes, at 6/0 and 10/0 per dozen tubes, respectively; also in glass pots at 11/0 per dozen, Prices subject.



营

BURROUGHS WELLCOME & CO.

See also the following and preceding pages



SUGGESTION No. 4

'WELLCOME' Photo Exposure Record and Diary, 1917

SHOWCARDS ON REQUEST

Apply to
10, Snow Hill
Buildings,
LONDON,
E.C.

HOW many copies are you showing in your window? A single copy of this pocket-book is not enough to be seen by the passer-by. If you have one dozen or six dozen, put them in the window, except a copy for customers to inspect. Try a display on the lines of that shown in the photograph, and introduce the book to every visitor to your Pharmacy. The resulting sales will gratify you.



'Wellcome' Photo Exposure Record and Diary is supplied to the Trade at 12/3 per doz., less 30 % (13 copies to the dozen)



BURROUGHS WELLCOME & CO.

See also the three preceding pages

ARLETS.

Guaranteed made from pure Aspirin B.P., manufactured by PIERSON, MORRELL & CO., NEW BARNET.

25's, 7/- per doz.; 100's, 25/- per doz.; 1000, 18/-

Subject to a discount of 5% if cash accompanies order.

Prompt delivery if without name and address, with name and address 7-10 days. A selection of 30 varieties of Labels to choose from.

H. & T. KIRBY & CO., LTD. Write-Belton Road, Willesden Green, LONDON, Wire-Kirby, Limited, Willroad, London, 'Phone-Willesden 1412.

The Lancet describes it as "Mr. Benger's admirable pre-GOLD MEDAL AWARDED MEALTH EXHIBITION paration." LONDON.

Wholesale of all Wholesale Houses and Shippers or from the Manufacturers

BENGER'S FOOD LTD., Otter Works, MANCHESTER, Eng. Branch Offices at: 117 Pitt St., Sydney, Australia; 90 Beekman St., New York, U.S.A. Canadian Agents: The National Drug and Chemical Co., Ltd., Montreal & Branches. ON THE P.A.T.A.

The British Medical Journal says:

> "Benger's Food has by its excellence established a reputation of its

FROZEN

is put up in aluminium, hasp-lidded, oval containers, with "northern blue" design, and is the very best of its kind. Sent out in decorated, easel-backed counter and window outers. Yields a splendid profit, which can be materially increased if you buy six dozen, when one dozen is given as bonus.

> PAYS WELL SELLS WELL AND IS WANTED : DAILY. :

Get some now from

CHRISTY'S

OLD SWAN LANE, LONDON, E.C.

NOTE MARGIN AT

P.A.T.A., PER TIN.

"TM" COSTS YOU PER DOZ. ONLY.

E CHEMIST & DRUGG



WINTER ISSUE **JANUARY 27,1917**



Contents.

Vol. LXXXIX., No. 4 (Series No. 1931).

, make an an		
PAGE		PAG
After Twenty Years 73	In Napoleon's War	67
A Gifted Orderly 81	Trich Nowa	66
A.Ph.A. Recipes 90	Legal Reports Longevity of Soap Bubbles	115
Apothecaries of the City	Longovity of Soon	110
of Dulling of the City	D. I.I.	100
of Dublin	Bubbles	109
Association Winter Ses-	Manufacture of Adalin	106
sion 112	Marriages .	117
Australasian News 68	Materia Medica Mono-	
Paginnings of the	materia medica mono-	00
Beginnings of the Early-closing Move-	graphs	92
Early-closing Move-	Microscopio Stains	122
ment 88	Military Service Notes	63
British Pharmacopæia 118	Militatry Tribunals'	
Chambers of Commerce 106	Decisions	64
	Mineral 76	
Chemical and Pharma-		120
ceutical Supplies in	New Companies	116
France 80	Notes on Novelties	110
Chemists in Literature 122	Observations and Re-	
Coming Events 64	floations	00
Correspondence:	flections	99
	Paris Revisited in War-	
Letters 125		102
Subscribers' Sym-	Personalities	117
posium 125	Popularising Herb	
Legal Queries 125	Popularising Herb- growing	85
Missollanous In	Poster Possibilities	00
Miscellaneous Inquiries 126	Poster Possibilities	96
quiries 126	Protected Names for	
Deaths 117	Chemicals Retrospect	69
Dentifrices 95	Retrospect	126
Diabetic Business 98	Scottish News	66
Editorial Articles:	Some C. 11	00
Pottoning Posing	Some Seasonable Recipes	
Bettering Business 100	Recipes	121
What is a Sweetmeat? 101	South African News	68
French Export Tax 101		120
Administrative Expenses	Street Pharmacy in	100
penses 101	Street Pharmacy in Paris	0.07
Two New Antiseptics 102	Taris	97
Edward New Antiseptics 102	The Cachet	96
Edmund Knowles Mus-	The Great Explosion	65
pratt 83	The Great Explosion The Pills	121
European War 63	The War and a Country	
French News 67	Pharmacy	81
Gazetto	Tolera Indianacy	or
Gazette	Tokio Industrial Col-	
German Army Pharma-	lege	79
C1St 85	Trade Report	123
How they Got the	2001. an Ounce	86
Goods	U.S. Pharmacopœia	71
Intermation Densitment 00	Way Dharmas	11
Insurance Act Di-	War Pharmacopœia	
nonein Act DIS-	Suggestion	72
pensing 113	What it Costs to Run a	
Insurance Act Dispensing	Pharmacy	104
_ Doctor 113	Window-dressing	94
Drug Prices 114	Winter Supplements	100
	oupprements	TAO

SUBSCRIPTION RATES.

Twelve Shillings and Sixpence a year in advance, post free to any part of the world, including a copy of The Chemist and Druggist Diary next published. Subscriptions may begin any month. Single Copy, 6d.; Summer or Winter Number, xs.; Diary 3s. 6d. Postal orders and cheques to be crossed "Martin's Bank (Limited)."

Prix de l'abonnement annuel: le journal une fois par semaine, et l'agenda une fois par an, 12s. 6d., franco.

Подписная цёна на еженедёльный журналь съ приложеніемъ Годового Дневника—12 шиллинговъ 6 пенсовъ на годъ съ пересылкой.

Precio de suscripción anual: el periódico una vez por semana, y el agenda una vez por año 12 ch. y 6 peniques, franco.

Terms for advertising in THE CHEMIST AND DRUGGIST can be obtained on application to the Publisher at the

Head Office: 42 CANNON STREET, LONDON, E.C. Telegrams: "Chemicus. Cannon, London." Telephone 3617 Central (three lines). Branches: ADELAIDE, MELBOURNE, AND SYDNEY, AUST.

European War News.

Import and Export Notices.

GERMANY.—According to a decree of the Imperial Chancellor of December 27, 1916, the exportation of glass and all articles of glass is prohibited, except when they are made use of as packing-material for other substances The prohibition also applies to feeding-bottles, Thermos flasks, bottles for mineral water, for ethyl chloride, and the like.

UNITED KINGDOM.—The following item has been deleted from the list of prohibited and restricted exports: (b) Ammonia and its salts, whether simple or compound (except ammonium nitrate, perchlorate, and sulphocyanide). The following item has been added: (b) Ammonia and its salts, whether simple or compound (except ammonium nitrate, perchlorate, and sulphocyanide) its salts, whether simple or compound (except ammonium nitrate, perchlorate, sulphate, and sulphocyanide; (a) sulphate of ammonia.

Military Service Notes.

The forms referred to as being now required to be furnished monthly by employers to the military authorities (C. & D., January 13, p. 36, and January 20, p. 33) are obtainable at post-offices. The regulation which requires the furnishing of these returns is made under the Defence of the Realm Act.

It was announced on January 23 that the War Cabinet has decided to call up young men when they reach the age of eighteen. Up to the present they have not been called until they are eighteen years and seven months old.

called until they are eighteen years and seven months old. On January 22 a circular was issued to the Military Tribunals, in which it is stated that the Government has come to the conclusion that as regards cases which come before Tribunals on grounds of business or employment, with the exceptions specified, every man under thirty-one years of age who. is fit for general service (Category A) or for garrison service abroad (Category B1) will be, after January 31, of more value to the country with the Forces than he would be in civil employment. Having regard to this pronouncement, the Tribunals are instructed that they will not be justified in exempting beyond January 31, on the ground that it is expedient in beyond January 31, on the ground that it is expedient in the national interest that he should continue in civil employment, any man under thirty-one years of age who is fit for general service or for garrison service abroad, unless he clearly comes within the exceptions specified. The following are exceptions to the general rule:

(a) If the man belongs to one of the occupations specified in Appendix A to the List of Certified Occupations, skilled men in which are urgently required for munitions or other work of essential national importance. A man should not be exempted because in one of these occupations unless he is engaged on work of essential national importance; or becomes engaged on such work within fourteen days, or such extended period as the Tribunal may allow; or, in suitable cases, enrols as a War Munitions Volunteer.

(b) If the man, with due regard to the age limits, is in a certified occupation. Any such case has to be dealt with in accordance with the special provisions relating to certified occupations.

(c) If the man, though not in one of the occupations mentioned above, is engaged on work of high national importance and possesses special qualifications for that work which make him manifestly irreplaceable. Exemptions under this head should be rare, and should not be admitted unless the required conditions are clearly fulfilled.

The Black List.

THE BLACK-LIST. - A new list of additions to the Statutory List of firms of enemy nationality or enemy association with whom persons in the United Kingdom are forbidden to trade has been issued. The list contains 146 new names, the greater number of which are in Spain and Denmark.

Personalia.

CADET FRED STANLEY ANDREWS, who was gazetted on January 18 to a commission in the Royal Inniskilling Fusiliers, belongs to Dungannon, and before going into the Army was a pharmaceutical student.

LANCE-CORPORAL R. W. WREN, of the Queen's Westminster Rifles, a qualified chemist, and son of Mr. R. C. Wren (Potter & Clarke, Ltd.), came home from the Front last week. He has seen a good deal of the fighting, and has had his share of narrow escapes. He has now been recommended for a commission.

SERGEANT ALFRED GEORGE KELLY, Royal Army Medical Corps, who, prior to the war, was an assistant with Boots, Ltd., and was formerly with the Timothy White Co., Ltd., has been gazetted lieutenant in the Army Service Corps He served at Suvla Bay, but was invalided home with enterie fever. He is now in Egypt.

LIEUTENANT-COLONEL D. CUTHBERT BARRON, M.B., B.Sc. in charge of the 54th Field Ambulance in France, was mentioned in Field-



LT. COL. BARRON.

Marshal Sir Douglas Haig's despatches. He is the youngest colonel in the R.A.M.C., being only twenty-six, and took his B.Sc. at the age of nineteen, studying at St. Andrews and Edinburgh Universities. While a student he on various occasions acted as locum for Mr. Alex Bertram, chemist, Innerleven. He rc ceived his commission early after the outbreak of war, and rapidly earned promotion.

PRIVATE HENRY SIGISMUND KUTNOW, only son of Mr. Sigismund Kutnow, and a director of S. Kutnow, Ltd., 41 Farringdon Road, London, E.C., has

gazetted temporary second-lieutenant of the Army Ordnance Department at Aldershot. Second-Lieutenant Kutnow was educated at Clifton College, Bristol, and Jesus College, Cambridge, and took his M.A. degree. Afterwards he became a member of the Middle Temple, London. He enlisted in the Royal Bucks Hussars shortly after the outbreak of war. He speaks fluently French, Italian, and German.

Military Tribunals' Decisions.

Bernondsev.—Mr. Alfred Barnett, chemist, Southwark Park Road, applied for exemption. He had been recommended for exemption by the London Insurance Committee. Six months' exemption was granted.—Mr. Arthur J. Seward, manufacturing chemist, Kintour Works, Grange Road, engaged in preparing medicines for the natives of South Africa and America, was granted six months' exemp-

Bromley.—The exemption granted to Mr. H. H. Cuthbert, dispensing chemist, Shortlands, was renewed. Three months' exemption was granted to Mr. Portlock, chemist and druggist, 20 Glebe Road, and A. J. Hill, with Mr. J. Timmis, dispensing chemist, Mason's Hill.

Calverley (Yorks).—Mr. J. W. A. Wright, chemist and druggist, was exempted until March 31.

Electrophysic J. The case of the dispense of a produced by

EASTBOURNE—In the case of a dispenser employed by Boots, Ltd., Mr. Hillman said 317 of the company's dispensers had joined the Colours, and the Army Council had decided that the cases of the other dispensers should be heard at Nottingham and certificates of exemption granted to them. Mr. Beattie, for the military authorities, said the Advisory Committee had reviewed the cases of the local chemists as they thought more remained than are required. It had been decided that the men lawfully engaged in dispensing should be exempted if their services are necessary to the community. He consented to withdraw the application for a review of the present case, on the understanding that the matter is left in the hands of the military.

Eccles.—A pharmacy student who has been studying at the Salford Technical School for three years was exempted

until April 30.

HASTINGS.—Exemption was refused to George Nicholson. assistant with Neve & Co., Norman Road.

KINGTON (HEREFORDSHIRE).—Conditional exemption was withdrawn from Christian Count, chemist's dispenser.

LAMBETH.—J. C. & J. Field, Ltd., Upper Marsh, Lambeth, asked for the exemption of seven employés. The factory is a controlled establishment producing glycerin. Badges had not been applied for because those men were first of all rejected and on further examination had been first of all rejected, and on further examination had been

passed into "C" class. Five men were allowed months' extension, and two claims were disallowed. Five men were allowed three

Lewisham.—When a dispensing chemist, passed for general service, applied for further exemption he put in a certificate from the Pharmaceutical Committee to the effect that his services are necessary to the business. The Military Representative stated that another dispensing chemist carrying on business within a short distance of the applicant had been given a similar certificate, but his application had been withdrawn because of his being medically unfit. It was not in the public interest that both shops should be kept going, and as the present applicant is passed for general service it would be better, in the national interest, that he should be doing his duty in the Army. The applicant stated that he was wholly engaged in dispensing, which could only be done by a qualified person. He made up about 10,000 prescriptions per annum. Three months was

MAIDENHEAD.—Conditional exemption has been granted Mr. J. H. Northey, dispensing chemist, Laburnum

Malvern.—Exemption until January 31 was granted to

Malvern.—Exemption until January 51 was granted to Mr. E. P. Andrews, chemist and druggist, manager of the Barnard's Green pharmacy of Mr. A. E. Baylis.

OSWESTRY.—The appeal on behalf of Goronwy Jones, apprenticed with Mr. T. Jones, dispensing chemist, was refused, but he is not to be called up until March 1.

OXFORD.—The exemption certificate of Mr. S. H. Clegg, dispensing chemist, 47 High Street, was replaced by one

granting temporary exemption for three months.

Peterborough.—One month's exemption was granted to

J. H. Gann, dispensing chemist, who is also a medical student at the London Hospital.

Sevenoaks.—Conditional exemption was granted to Mr. D. Finlayson, dispensing ehemist, 91 High Street, but exemption was refused to P. C. Joy, assistant with Pain & Powell, chemists.

SHEERNESS.—One month's exemption was granted to Stanley Verrall, assistant with Mr. J. E. Hudson, Ph.C. Conditional exemption was granted to Mr. C. W. Moorhead, managing director of Moorheads, Ltd., chemists and

SOUTHEND-ON-SEA.—A chemist and druggist in the employ

of Boots, Ltd., was granted exemption until March 1.
SOUTHWARK.—Stevenson & Howell, Ltd., manufacturing chemists, 95A Southwark Street, London, S.E., appeared to show cause why a certificate of conditional exemption granted to Mr. H. Lightfoot, manager, should not be withdrawn. It was stated that he was doing the work of a member who has joined up, and that he is in charge of the principal department, which has a turnover of 100,000. a year. The certificate was confirmed.—An employé of Smith & Co., manufacturing chemists, 132 Borough High Street, S.E., had his conditional exemption certificate as an export clerk withdrawn, two months' exemption being substituted.

STOURBRIDGE.—The application for exemption was refused

for Mr. A. C. Yeates, chemist and druggist, assistant with his father, Mr. A. Yeates.

Truro.—Conditional exemption was granted to Mr. A. J. Roberts, Ph.C., but his assistant, H. A. Waters, is to join up on February 1.

UPTON-ON-SEVERN.—Exemption until June 1 was granted to F. V. Gibbs, assistant with his father, Mr. J. Gibbs, dispensing chemist.

Weyringe.—Eric Brown, a chemist's assistant, appealed for exemption until March 31, when he would be old enough to join the Special Brigade of the Royal Engineers. This was not allowed, but the Military Representative was asked to give applicant every facility to join the Royal Engineers.

Whittlesey.—Conditional exemption was granted to Mr. Major Sharpley, dispensing chemist.

Wimborne.—Temporary exemption was granted to Reginald Ford, assistant with Mr. F. S. Seymour, dis-pensing chemist.

WORCESTER.—Exemption until February 28 was granted to F. J. Newton, with E. J. Kitson, Ltd., chemists.

THE WAR TRADE INTELLIGENCE DEPARTMENT is removing to a building situate in St. James's Park. On and after January 29 all communications for this Department should be sent to the new address, 1 Lake Buildings, St. James's Park, near Storey's Gate, Westminster, S.W.

Some German-Made novocain which was imported into the United States recently bore the label "Importation into Great Britain, British Colonies and Dominions prohibited." Unconsciously the Germans are anticipating the future, as we hope that shortly there will be no reason why in future any person in the British Empire should buy the Hun product.

French News.

(From the "C. & D." Paris Correspondent.)

OPTICAL INSTRUMENTS.—The manufacture of optical instruments, and particularly of optical glasses, has for the last sixty years or more been steadily drifting from France to Germany. To endeavour, so far as possible, to retain and regain lost ground after the war, the Minister of Public Instruction has directed a report to be drawn up on the matter.

ARMY BADGE FOR PHARMACISTS.—At present Paris, like London, is a museum of army badges, from the sphinx of the interpreters to the grenade of the munition-worker. So it is not surprising to note that the matter was brought up at a recent meeting of the General Association of French Pharmacists. The French military pharmacist is already distinguished by the green velvet collar and cuffs of his tunic, but the burning question of the badge remains to be settled. Should he wear the embroidered caduceus common to the French army surgeon and the R.A.M.C., or should a special badge be adopted, and, if so, what should it be? (A pestle would be neat, appropriate, modest, and unmistakable.) The Association finally decided to leave this question in abeyance until sundry details of rank, etc., calculated to place the army pharmacist on a firmer footing, are settled.

Moissan's Legacies.—The legacies bequeathed by M. Louis Ferdinand Henri Moissan (son of the late famous Professor at the School of Pharmacy), who was killed early in the war, have now been formally authorised by decree. To the Paris School of Pharmacy he leaves a collection of the chemicals produced by his father, as woll as the apparatus used by the great chemist to isolate fluorine. Besides this, the school receives a sum of 200,000f. to found two prizes, one of which is to bear the name of Henri Moissan, and the other that of the testator's grandfather, Pierre Florentin Lugan. A collection of paintings, furniture, and art objects, a building valued at 1,000L, and 4,000L to keep up the collection go to the town of Meaux, now well known as a centre for tours to the "battlefield of the Marne." Finally the 102nd Infantry—the regiment in which the deceased served—receives 2,000L.

Sugar and Saccharin.—The scarcity of sugar has naturally raised the question of the possibility or advisability of extending the uses of saccharin, and in this connection M. Pouchet, the well-known Professor of Pharmacology, who sat on one of the Codex Revision Committees, has been interviewed. The professor briefly summarised the history of the existing regulations. In 1888 the Consulting Committee of Public Hygiene requested him to draw up a report on the above question in collaboration with Dr. Brouardel and M. Ogier, the toxicologist. They collectively discouraged the use of saccharin as an alimentary product. Its tendency is to retard the transformation of albuminous substances in the digestive organs, and consequently to increase stomach-trouble in general, and particularly in cases of dyspepsia. Professor Pouchet sees no reason to modify this opinion. If the use of saccharin instead of sugar in the preparation of certain syrups is practicable, and would lead to a serious saving of sugar, it might perhaps be tolerated. But the professor has strong doubts that such would be found the case, and is entirely in favour of upholding the present regulations.

RED CROSS WORK.—The readers of the C. & D. articles on "Paris in War-time" are aware of the useful work performed by the Red Cross Society in the French capital after the battle of the Marne, but the recently published report gives a few additional details. While the Germans were still making fierce attacks on the French line some twenty-five miles from Paris, Anglo-Parisians—met in the Salle Jouffroy to organise ambulance-work. Men from Sir John French's Army were straggling into Paris itself, and no British military organisation existed to receive them. Ten thousand leaflets were printed in two languages to give information as to where wounded British soldiers should be taken, and the Red Cross direction-cards were conspicuously placed in the windows of almost every pharmacy in certain quarters. Red Cross cars were run out to the Front—most English pharmacists and their assistants went out on them at one time or another to render service. Medical vehicles were despatched to Meaux (a mile or two from the principal battlefield) with medical stores, and usually brought back wounded men to the Hertford Hospital and other establishments; while the hundreds of doscs of anti-tetanus serum supplied from Paris enabled surgeons to cope with many cases which would otherwise have terminated fatally. So the R.A.M.C. officers were able to remain at the Front while civilians worked and organised in Paris.

In Napoleon's War.

Is it generally known how many interesting accounts of the wars of a hundred years ago were written by French pharmacists? Most of them are, unfortunately, out of print, and few have been translated into English; but anyone who shares Sir Arthur Conan Doyle's love of French military memoirs and wishes to learn something of what war was really like in our great-grandfathers' days, might do worse than make a study of these little-known volumes. They will hardly interest the student of strategy, but, on the principle that "lookers-on see most of the game," give as account of the ghastly and picturesque realities of warfare which strike a layman more than many of the narratives of men in the fighting line. Two deal with the Poninsula. The better-known is Sebastian Blaze's volume, which was republished in France a few years ago. He is a lively, amusing writer, and gives Spanish impressions with all the freshness of a mere lad; he was but nincteen when he left France. Taken prisoner and placed aboard the hulks, his narrativo shows that the ill-treatment and semi-starvation of prisoners of war are unfortunately no new things. He escaped and spent a long time in the South of Spain; we who talk of "long wars" perhaps forget that it took Wellington fivo years to drive Napoleon's troops

from Spain.

Fée is, however, my favourite, writes our correspondent. A quieter and more studious youth than Blaze, he doubtless hoped to escape really active service by qualifying as army hoped to escape really active service by qualitying as army pharmacist. By the irony of fate, he was at Barossa and at Vittoria (where he actually got mixed up in a cavalry charge) as well as at Waterloo. His memoirs, published when he was a middle-aged man, form one of the most interesting accounts I have read of the Peninsular War—and I have read many. The homesick soldiers longing for a battle as a relief to their monotonous exile, the life of the youthful officers quartrad among the pretty secretizes of a battle as a relicit to their monotonous exite, and are youthful officers quartered among the pretty seneritas of the Sunny South, the bloodshed of Barossa, the privations of retreat, the wild confusion of the rout of Vittoria, and many other pages remain engraven in one's memory. One many other pages remain engraven in one's memory. regrets never to have met the man; he must have been singularly intelligent, observant, cultivated, and charming. He lived into our own day, and his tales fired the imagination of a little lad, one of his collateral descendants, who is now the standard historian of 1814-15—Henri Houssaye. Cadet de Gassicourt, plarmacist to the Emperor Napoleon I., left a volume of "Memoirs" which I only unearthed quite recently in the library of the Paris School of Pharmacy. There is very little pharmacy in the worthy apothecary's book, but, like those already cited, he gives a picture of the desolation of war which cannot fail to strike a civilian, for Cadet viewed it with civilian eyes. He marched in the wake of a victorious army, saw to what excesses a victorious soldiery can subject a helpless population, and placed on record simply what he actually witnessed. He ass'sted to embalm the body of Lannes when the marshal was killed at Essling. It was a pharmacist major named Fortin who took the body back to Paris and broke the news to Madame de Montebelle, the marshal's regrets never to have met the man; he must have been broke the news to Madame de Montebello, the marshal's wife. The capture of an enemy standard is so favourité an incident with artists and writers that Cadet's exploit deserves to be put on record. He was seen at Vienna passing through the palace, carrying an Austrian military flag towards the Emperor's apartments. "Did you capture it?" asked the captain of the guard. "I did," replied the modest pharmacist. "I beat down a packing-case and wrenched away twenty Austrian nails." He had found it in a how and those who smile should recomber that one wrenched away twenty Austrian nails." He had found it in a box, and those who smile should remember that one of the 1914 captured German standards shown at the Invalides was found (unpacked, it is true) in an abandoned chateau. The Emperor jokinzly told Fourcroy that "in this campaign everybody satisfied me by their zeal: even my apothecary carried off a flag." The canny Cadet, by the way, also discovered a herbarium and a collection of minerals. We have all heard of El Arisch lately in connection with our Egyptian warfare. How many people know that it was the scene of a much-discussed detail of Napoleon's career in which a pharmacist was seriously involved? leon's career in which a pharmacist was seriously involved? Cadet tells the tale in an appendix. The accusation brought against Napoleon of having deliberately ordered the poisonagainst Napoleon of having deliberately ordered the poisoning of the plague-stricken soldiers at Jaffa was. Cadet states, made by a British officer named Wilson, who said 580 were thus disposed of. This is apparently an exaggeration. The plague-stricken men brought from Jaffa to Damietta by sea and then to El Arisch by land, numbered only sixty. Rouver, the head-pharmacist there (not to be confounded with his contemporary Royer). only sixty. Rouver, the head-pharmacist there (not to be confounded with his contemporary Royer), was ordered to give them a strong dose of opium. In some cases this brought on a crisis and saved the men's lives; others perished. Rouyer never left Egypt: Napoleon never allowed him to return to France, and he died of grief.

Australasian News.

The Commonwealth.

WAR PROHIBITIONS.—Under the War Precautions Regulations Acts, it is made an offence to sell or supply to lations Acts, it is made an offence to sell or supply to Army recruits any substance or article which might result in a medical examiner being deceived as to the normal mental or physical condition of the recruit. Under Regulation 42 (c) it is an offence to sell, oxchange, give away, or in any manner dispose of or deal in phosphorus without the written permission of a competent naval or military authority or of a police constable, and the owner, merchant, trader, dealer, or shopkeeper on whose behalf it is disposed of is made guilty of an offence even if it should be contrary to his instructions.

Organisation of Technical Chemists—A year ago are

ORGANISATION OF TECHNICAL CHEMISTS.—A year ago an Australasian Chemical Association was formed in Lithgow, Australasian Chemical Association was formed in Lingow, Now South Wales, with the objects of obtaining a general increased in salaries, fees, and allowances paid to analysts and assayers; to promote legislation to make the profession of analyst and assayer a legally qualified one, and also such legislation as would tend to enlarge the scope of the analyst and assayer. In August, Professor Orme Masson, of the Melbourne University, announced that a Committee had been formed in Sydney, including most of the representativo chemists and analysts, to initiate a movement for the formation of an Australasian Instituto of Chemistry, and a similar Committee was proposed for of Chemistry, and a similar Committee was proposed for Melbourne for the organisation of persons competent to practise the profession of chemistry. The name "Australian Chemical Society" was adopted in preference to Institute or Association, and it was proposed to secure, if possible, a charter from the Federal Government and then call it "The Australian Chartered Chemical Society" or any other suitable designation. Membership was to be open to all persons who were genuine chemists, and a list of qualifications was drawn up, including practically those of qualifications was drawn up, including practically those who had recognised University or College training in chemistry, Fellows or Associates of the Institute of Chemistry, lecturers or teachers at Institutes approved by the Committee, chemists in charge of Government labora-tories or industrial institutions, or in private practice-for three years, or employed for three years in University, Government, laboratories, technical college laboratories, etc., on the recommendation of the chemist in charge; in Melbourne and Brisbane, as well as in Sydney, which are in communication, and joint action will be taken, probably in the New Year, to draw up constitution and rules.

New South Wales.

SALE OF PHOSPHORUS.—At the meeting of the Pharmacy Board on November 14, the Registrar stated that he had been asked by the Treasury to report on the sale of phosphorus, having regard to the recent outbreak of fires in Sydney and throughout the Stato, with a request for information as to what powers are provided under the Poisons Act to make regulations with a view of restricting the sale of phosphorus. The Registrar stated that he had informed the Department that the Covernor can declare informed the Department that the Governor can declare phosphorus to be a poison to be placed in the first part of the Poisons Schedule, and that regulations can be made under that Act to provide for the custody and restriction of sales of phosphorus as a scheduled poison similar to the restrictions in force in regard to opium and the regulations as to the custody of opium. He submitted that preparations of or containing phosphorus could be placed in the Poisons Schedule. The Board formally endorsed the Registrar's report to the Treasury.

New Zealand.

Assistants' Wages.—The following were the weekly wages claimed by Christchurch assistants at the meeting of the Conciliation Council on November 28: Apprentices during first year of service 10s., second year 20s., third year 30s. Assistants: Unqualified, first year 60s., second year 70s., third year 80s., thereafter 100s.; qualified, first year 80s., second year 90s. third year 100s., and thereafter 120s. Managers enrolled as such under the Pharmacy Act, 1908, and its amendments shall be paid not less than 6l. 10s. Casual and relieving assistants, unqualified 5l. 10s., and qualified 6l. 10s.; relieving assistants to be paid travelling-expenses in addition to the weekly wage. Any work done Assistants' Wages.—The following were the weekly wages expenses in addition to the weekly wage. Any work done on Christmas Day, Good Friday, or Sundays shall be paid at double-time rates, and all work done on any other than the specified holidays at the rate of time and a half. Two weeks' holiday on full pay shall be granted each worker per annum.

South African News.

(From "C. & D." Correspondents.)

"The Chemist and Druggist" is supplied weekly to members of all the Chemists' Societies in South Africa.

Personal.—Mr. Gerrish, of Southall Bros. & Barelay, Ltd., Birmingham, and Mr. Glenny Watt, of Evans Sons Lescher & Webb, Ltd., were in Cape Town when the mail left on December 20. They report business as good. First Woman Chemist.—Mrs. Lily Heymann, wife of Mr. Lesch Heymann, wife of Mr.

Joseph Heymann, of Johannesburg, has passed the examination entitling her to practise as a chemist and druggist in the Transvaal. She is the first South African lady who has passed the local qualifying examination. Mrs. Heymann matriculated at the Jeppes High School, Johannesfor four years, as prescribed by law, and, by means of evening classes, took a four-years' course, under Professor J. A. Wilkinson, at the Transvaal School of Mines and Tech-

nology.

A NOTABLE Anomaly existing at the present time, writes a correspondent, is that no pharmaceutical chemist with a purely Transvaal qualification may practise in any of the three other Provinces of the Union of South Africa; and also none with a purely South African qualification may practise in Great Britain. On the other hand, any chemist with a British qualification may be registered to practise in South Africa. The Pharmaey Boards of the Union are endeavouring to remedy these apparent anomalies by legislation in the Union Parliament.

Cape Province Pharmaceutical Society.

A GENERAL MEETING of the Pharmaceutical Society of the Cape Province was held at the Society's room, Darling Street, on Thursday, December 21. Owing to the proximity of the Christmas holidays the attendance was very poor, and consequently several important items on the agenda had to remain in abeyance. The greater part of the evening was taken up in reading the paper, given below, sent in by Mr. G. Francis Jones.

A hearty vote of thanks was passed to Mr. Jones for having sent in the paper.

Meroola-nuts: A New Oil-Bearing Material.

Meroola seeds or nuts (Sclerocarya caffra) are found in the Northern Transvaal. The seeds weigh from 3 to the Northern Transvaal. The seeds weigh from 3 to 4 grams, and measure about 1 inch in length and ½ inch in width. The nuts on analysis were found to contain 87.9 per cent. of very hard shell, and 12.05 per cent. of kernel. The kernels have a pleasant nutty flavour, and should be highly nutritious as a food. The trees grow wild, and are used by the natives to make Kaffir beer. The kernels on ether extraction gave 5 to 6.3 per cent. of a pale-yellow oil, having a characteristic nutty flavour, which has the following analytical constants: has the following analytical constants:

Specific gravity at 15.5° C. ... 0.9153 Acid-value (as oleic) ... 1.59 per cent. ... 19.1 per cent. 0.93 per cent. Saponification-number Unsaponifiable matter 72.90 per cent. Wijs' iodine-number ... Glyeerol Hehncr's value ... Fatty acids: 10.6 per cent. 94.7 per cent. Melting-point 24.3° C. Wijs' iodine-value ... 76.8 per eent. Wijs' iodine-value Mean molecular weight 265

An attempt was made to determine approximately the constitution of the mixed fatty acids by combining the lead-ether method and repeated fractional crystallisation by magnesium acetate. By repeated crystallisation with magne-sium acetate 9 per cent. of saturated fatty acids was obtained, with melting-point 74° C., iodine-value 1.02 per cent., molecular weight 274.

...

The unsaturated fatty acids by the lead-ether method gave 91 per cent., which on oxidation chiefly yielded di-hydroxy-stearic acid, no hexabromides being formed. The fatty acids therefore probably consist of

Stearie and palmitic acids ... 9 per cent. 91 per cent Oleic and linoleie acids ... absent Linolinie acid

The oil should have a good commercial value for edible purposes, and could be used in soap-manufactures. The resources of seeds in the Northern Transvaal, with the exception of ground-nuts, have up to the present time been very

[Samples of the seeds can be obtained from Mr. Austin Thomas, 57 Roodebloem Road, Woodstock, Cape Town.—Eb.]

Protected Names for Chemicals.

A List of some Chemical Products the British Patents for which have expired, but Monopoly is continued to Alien Enemies by Registered Trade-marks.

REGISTERED TRADE-MARK			Patenr/					
	Number	When Registered	By whom	Renewed	Number	Year	Patentee	Expired
ACOINE	210294	1898	Von Heyden	1911	24287	1897	Von Heyden	1904
ADORIN	$\left\{egin{array}{c} 264531 \ 264772 \end{array} ight.$	$1904 \\ 1905$	Schering	-	24531	1893	Schering	1902
ADUROL	213062	1898	Actien Ges.	1912	13195	1898	Hauff	1912
AKREMNIN	∫ 265609 }	1904	Zerbe	_	9638	1904	Zerbe	1908
ALBARGINE	258119	1903	Meister		23509	1900	Meister	1914
ALUMNOLE	215948	1899	Meister	1912	10668	1892	Meister	19.2
Anaesthesin	244958	1902	Meister	_	16684	1903	Ritsert	1908
APERITOL	301605	1908 1899	Knoll	1912	27095 8429	1908 1893	Knoll	1913 1900
ARGENTAMIN	216096 183707	1899	Schering Meister	1912	22191	1894	Schering Meister	1900
ARGONIN	93538	1890	Bayer	1903	5079	1889	Bayer	1903
BARUTIN	268934	1905	Actien Ges.		4959	1905	Actien Ges.	1909
Benzosol	97425	1890	Meister	1904	~ 5366	1890	Meister	1904
Blutan	272291	1905	Dieterich	_ ^	20273	1904	Dieterich	1913
Bromocoll	$\left\{ rac{230737}{230738} ight\}$	1900	Actien Ges.	1914	5122	1900	Actien Ges.	1909
CALOMELOL	256731	1903	Von Heyden		19168	1903	Von Heyden	1907
CHINAPHENIN	252442	1903	Zimmer	· —	22285	1899	Zimmer	1912
Chinosol	$\left\{ \begin{array}{c} 220003 \\ 221896 \\ 221898 \end{array} \right\}$	1899	Fritzsche	$\left\{ egin{array}{c} 1912 \ \& \\ 1913 \end{array} ight\}$	1409	1896	Fritzsche	1909
CITARIN	249047	1902	Bayer		23988	1902	Bayer	1916
CLAVIN	286533	1906	Merck		239	1906	Merck	1910
CREOSOTAL	216421	1899	Von Heyden	1912	19074	1890	Von Heyden	1904
CRYSTALLOSE	216424	1899	Von Heyden	1912	22726	1894	Von Heyden	1908
DERMATOL	215949	1899	Meister	1912	6234	1891	Meister	1902
DIASPIRIN	301139	1908	Bayer		5842	1907	Bayer	1914
DIGIPURATUM	302865	1908	Knoll		6019	1908	Knoll	1915
DIONIN	217175	1899	Merck	1912 1910	13703 19074	1899 1890	Von Mering Von Heyden	1912 1904
DUOTAL	$\begin{array}{c} 197371 \\ 242464 \end{array}$	1896 1902	Von Heyden Bayer	1910	12421A	1901	Bayer	1914
	-				7740	1898		1907
EIGON	227710	1900	Dieterich	1914	17934 5207	1899	Dieterich	1906
EIKONOGEN	92059	1899	Actien Ges.	1903	25002	1893	Andresen	1963
Empyroform	254917	1903	Schering	,	12282	1903	Schering	1907
EPICARIN	225437	1899	Bayer	1913	17118	1899	Bayer	1905
ESTON	295927	1907	Friedlaender	1909	8576 20697	$\frac{1907}{1896}$	Friedlaender Schering	1911 1908
EUCAINE	$193242 \\ 259162$	1896 1904	Schering Bayer	1909	25804	1901	Bayer	1906
EUMYDRIN	216095	1898	Schering	1912	20697	1896	Schering	1908
. (317242	1-			(4991	1896	_	1910
EUQUININE {	Associated	1910	Zimmer	7000	22639	1899	Zimmer	1910
EUROPHEN	94834	1890	Bayer	1903	18021	1890	Bayer	1904
FERRATIN	216202	1899	Boehringer	1912	15714	1893	Boehringer	1907
FORMAN	263068 (Formawn) 264432 (Formarn)	1904	Lingner	 .	5293	1902	Lingner	1906
FORMESTON	292729 194057	1907 1896	Friedlaender Schering	1910	8643 18237	1907 1893	Friedlaender Reissner and	1911 1901
GUJASANOL	228729	1900	Meister	1913	23435	1898	Hauser Meister	1907
HEDONAL	226405	1899	Bayer	1913	18802	1899	Bayer	1909
HIPPOL	268962	1905	Schering	— .	10095	1903	Schering	1909
HYRGOLUM	218383	1898.	Von Heyden	1912	13800	1898	Von Heyden	1902
ICHTHALBIN	223215	1899	Knoll	1913	11344	1897	Knoll	1903
Ichthargan	$\left\{ \begin{array}{c} 224342 \\ 224343 \end{array} \right\}$	1899	Ichthyol Gcs.	1913	14389 -	1899	Helmers	1906
Існтноговм	$\left\{ \frac{222252}{222253} \right\}$	1899	Ichthyol Ges.	1913	9157	1899	Helmers	1907
	1				1.0			

REGISTERFD TRADE-MARK			PATENT					
	Number	When Registered	By whom	Renewed	Number	Year	Patentee	Expired
Існтнуоц	$ \left\{ \begin{array}{c} 59155 \\ 59156 \\ 59157 \end{array} \right\} $	1887	Iehthyol Ges.	{ 1900 1914	10523 6044	1884 1893	Sehröter Helmers	1898 1904
Ichthyolidin Imogen	67261 212669	1887 1898	Ichthyol Ges. Actien Ges.	1901 1912	$\begin{array}{c} 6795 \\ 21595 \end{array}$	1901 1898	Helmers Actien Ges.	1905 1902
Iodoformogen Iodothyrine	223216	1899	Knoll	1913	$ \left\{ \begin{array}{c} 18178 \\ 12295 \\ 20827 \end{array} \right\} $	1897 1895 }	Knoll Bayer	$ \begin{cases} 1902 \\ 1909 \\ 1900 \end{cases} $
LACTOPHENIN	216203	1899	Boehringer	1912	9576 12166	1896 1892	Boehringer	1902 1906
LANOLIN	50214	1886	Jaffé	f 1899 }	4992	1882	Braun and	1896
LYCETOL LYSOFORM	177043 230544	1894 1905	Bayer Groppler	1913 }	8824 7616	1893 1900	Liebreieh f Bayer Groppler	1907 1913
MEDINAL	304403	1908	Sehering	-	$\left\{ \begin{array}{c} 19411 \\ 2566 \end{array} \right.$	$1904 \\ 1905$	Schering	1913
MERGAL MESOTAN	294614 242570	1907 1902	Riedel Bayer		11180 8955	1905 1902	Riedel Bayer	1910 1916
MONOTOL NEURONAL	246672 264837	1902' 1904	Bayer Kalle		25571 16602	1905 1904	Bayer Kalle	1913 1911
Nutrose	215950	1899	Meister	1913	22190	1894	Meister	1901
Orphol	190732	1896	Von Heyden	1909	$\left\{\begin{array}{c} 13291 \\ 15361 \end{array}\right.$	$\left\{\begin{array}{c} 1892 \\ 1894 \end{array}\right\}$	Von Heyden	$\left\{ egin{array}{ll} 1906 \\ 1901 \end{array} ight.$
ORTHOFORM	215951	1899	Meister	1912	$\left\{\begin{array}{c} 12179 \\ 22106 \end{array}\right.$	$1897 \\ 1898$	Meister	{ 1904 1907
Oxaphor Pankreon	217439 - 306537	1898 1908	Meister Rhenania	1912	18035 14414	1896 1900	Meister Rhenania	1902 1914
Paraform	216093 ∫ 224850 }	1899	Sehering	1912	11228	1897	Schering	1901
Pernol	224851	1899	Action Ges.	. 1913	25735	1899	Actien Ges.	1908
PROPONAL	269787 275299	1905 1905	Merek Bayer		1664 18478	1903 1897	Fiseher Bayer	1911 1911
PURGATOL PYRAMIDON	$300146 \\ 215952$	1908 1898	Knoll_ Meister	1912	22328 7709	1900 1896	Knoll Meister	1904 1910
RESALDOL	226771 159372	. 1899 1891	Bayer Action Ges.	1913 1905	17118 1736	1899 1891	Bayer Actien Ges.	1905 1905
SALOPHEN	278592	1906	Bayer		∫ 11833	1891	Bayer	∫ 1905
SALOQUININE	241251	1901	Zimmer		11783	1892 f 1901	Zimmer	1906 1914
SANTYL SECAPURATUM	275172 302866	1905 1908	Knoll Knoll	=	17511 27038	1905 1908	Knoll Knoll	1909 1912
SOMATOSE	215685 222797	$1898 \ 1899$	Bayer	{ 1912 1913	$\left\{\begin{array}{c} 1897 \\ 3391 \end{array}\right\}$	1898	Bayer	1911 1912
SUBLAMINE	264445 238066	1904 1901	Bayer Schering	_	8407 5981	1906 1900	Bayer Sehering	1914 1909
TANNALBIN	216134	1899	Knoll	1912	$\left\{ \begin{array}{c} 6140 \\ 13281 \end{array} \right\}$	1896	Schering	1904 1905
TANNIGEN	275300	1905	Bayer	-	1228	1894	Bayer	1908
TANNOBROMIN	$301275 \\ 217352$	1908 1899	Aetien Ges.	1912	$14213 \\ 11061$	1900 1898	Actien Ges. Actien Ges.	1909 1907
TETRONAL	87967 247465	1889 1900	Bayer Bayer	1903,	$12563 \\ 14935$	1888 1902	Bayer Bayer	1902 1914
TRIGEMIN	256068 { 210472 }	1903	Meister		15782	1903	Meister	1908
TROPON	210473	1898	Von Bodenhausen Weisten	1911	13096	1899	Finkler	1908
TUMENOL UNAL	349957 253559	1914 1903	Meister Action Ges.	=	19502 11866	1890 1901	Messel Action Ges.	1895 1907
Urosin Validol	$\begin{array}{c} 216166 \\ 216165 \end{array}$	1899 1899	Zimmer Zimmer	$\frac{1912}{1912}$	27333 3706	1898 1896	Zimmer Zimmer	1909 1909
VERONAL	251242	1903	Merek (sinee transferred to	· —	1664 Several	1903 additional	Fischer	1911
			Bayer)		[Several]	taken ou 1892	t]	1906
XEROFORM	216423	1899	Von Heyden	1912	15361	1894	Von Heyden	1901
YOHIMBINE	232617	1900	Heilman	1914	11647	1900	Spiegel	1914

Note A.—The following are the names and addresses of the German companies or firms which are given in abbreviated form in the above table:

Action Ges.—Action Gesellschaft für Anilin Fabrikation an der Treptower Brücke, Berlin.

Bayer.—Farbenfabriken vormals Friedrich Bayer & Co., Elberfeld, Germany.

Boehringer.—C. F. Bochringer & Soehne, Waldhof, near Mannheim.

Dieterich.—Chemische Fabrik Helfenberg Actien Gesellschaft, vormals Eugen Dieterich. Helfenberg, near Dresden.

Friedlaender.—Chemische Werke Fritz Friedlaender G.m.b.H., Berlin.

Fritzsche.—Franz Fritzsche & Co., Hamburg.

Heilman.—Ernst Heilman, trading as Chemische Fabrik
Guestrow, Guestrow, Mecklenburgh-Schwerin.

von Heyden.—Chemische Fabrik von Heyden G.m.b.H.,

Radebeul, near Dresden. -Ichthyol Gesellschaft Cordes, Hermanni &

Ichthyol Ges.—Ichthyol Gesellschaft Cordes, Hermanni & Co., Hamburg.

Ja#é.—Benno Jaffé & Darmstaedter, now Vereinigte Chemische Werke Actiengesellschaft, Charlottenburg, Berlin.

Berlin.

Kalle.—Kalle & Co., Biebrich a/R., Germany.

Knoll.—Knoll & Co., Ludwigshafen a/R., Germany.

Lingner.—Karl August Lingner, Dresden.

Meister.—Farbwerke vormals Meister, Lucius & Brüning,

Hoechst a/Main, Germany.

Merck.—E. Merck, Darmstadt.

Khenania.—Chemische Fabrik Rhenania, 49-51 Wilhelm
strasse Aschen.

strasse, Aachen.

Riedel.—J. D. Riedel Aktiengesellschaft, Berlin.

Schering.—Chemische Fabrik auf Actien vormals E. Schering, Berlin.
Zimmer.—Vereinigte

Chininfabriken Zimmer G.m.b.H., Frankfort a/Main.

Note B .- The following registered trade-marks are mentioned in the specifications of the respective patents: Alumnole, Benzosol, Crystallose, Iodothyrine, Lanoline, Tumenol, Yohimbine. In the ichthyol patent "ichthyo" is used as a prefix: "Ichthyolate" and "Ichythyolicum" are also registered trade-marks.

NOTE C.—The position of the registered trade-mark Diaspirin (310,139) is not clear. It is an "associated" mark, and the marks with which it was associated (221,673 and 322,523) have been removed from the register under the Patents, Designs, and Trade-marks (Temporary) Rules Acts, 1014

U.S. Pharmacopœia IX. Notes on the Pharmacy Monographs.

By Thomas Maben, Ph.C., F.C.S.

CONSIDERATION of the pharmacy of the new A U.S.P. naturally suggests a comparison with that of the B.P. 1914, and opportunity will be taken to point out such differences as may be of importance. Speaking generally, the U.S.P. appears to give more attention to modern medical practice than our own. For example, sterile distilled water is official as well as ordinary disdistilled water, the former being prepared by boiling freshly distilled water in a flask plurged with cotton. Recent distilled water in a flask plugged with cotton. Recent experience has shown that the use of old, non-sterile, distilled water in the dilution of salvarsan has led to very untoward results in intravenous injection, and even for hypodermic injection bacteria in such water may be very objectionable. Physiological salt solution (Liquor Sodii Chloridi Physiologicus) is another sterile solution, which, however, must not be kept in stock for dispensing more than forty-eight hours after it is made. In this country the practice is to make this solution as it is required. Aqua Ammoniæ Fort. contains from 27 to 29 per cent. of NH₃ instead of the impossible 32.5 per cent. of the B.P. Under ordinary conditions strong solution of ammonia is soon reduced to 25 per cent., or even less. Liquor Sodii Glycerophosph., a new addition, is really the pasty glycerophosphate, which contains not less than 50 per cent. of the anhydrous salt, and which is commonly used here. It corresponds to about 74 per cent. of the crystalline salt, hence has been sold as 75 per cent. glycerophosphate. The crystalline glycerophosphate, containing 68 per cent. of auhydrous salt, is also now official, as also calcium glycerophosphate, containing 98 per cent. of anhydrous salt. Two new preparations, Magma Bismuthi and Magma Magnesiæ, are added, these being defined as milk of bismuth and milk of magnesia. The former contains the equivalent of 35 gr. of bismuth subnitrate and the latter 32 gr. of magnesia per fluid ounce. The secret of preparing milk of bismuth is to have highly dilute solutions. In the case of milk of magnesia corks steeped in paraffin-wax are to be employed, this to prevent development of the mustiness which frequently takes place. Considerable alterations have been made in the chemical standards of drugs.

The following comparison gives some of the more important galenical changes:

	Edition	Edition
Per cent. Alkaloid in	1X.	VIII.
· Aconite, extract	2	
" fluidextract	0.5	0.4
tincture	0.05 *	0.045
Belladonna leaves, extract	1.25	1.4
" root, fluidextract	0.45	0.4
Guarana	4.0	3.5
Hyoscyamus, extract	0.25	0.3
" fluidextract	0.065	0.075
,, tincture	0.0065	0.007
Incompany to desire the state of	2.0	1.5
Nux Vomica, extract (total)	16.0	
		5.0 (Strych.)
" fluidextract "	2.5	1.0 ,,
tincture ,,	0.25	0.1 ,,
Opium, powdered (anhydrous)	10.0	12.0 (Cryst.)
Orthoot	20.0	20.0 ,,
Administration (1)	1.0	20.0
		0.14
Physostigma, tincture	0.15	0.14
Pilocarpus, fluidextract	0.6	0.4

A curious anomaly occurs in regard to ipecac., which is required to yield not less than 1.75 per cent. of alkaloids, while the fluid extract must contain not less than 1.8 nor more than 2.2 per cent., the fluid extract thus representing 113 per cent. of the drug. A similar and even greater anomaly occurs in the B.P., the liq. ext. of belladonna containing 0.75 per cent. of alkaloid, whereas the root rarely contains as much as 0.5 per cent.

With regard to non-alkaloidal extracts, a number of these bear a definite relation to the drug from which they are made. Thus extracts of cimicifuga, colocynth, and gelsemium are four times the strength of the drug, viburnum prunifolium five times, ox-gall eight times, rhubarb twice, and cascara three times, cascara extract being diluted with starch and magnesia. Glucose is used as a

diluent where necessary in soft extracts.

For a number of toxic drugs biological tests are prescribed, digitalis, squill, and strophanthus being tested on the frog, with ouabain as a control, the one-hour lethal dose being recognised. Cannabis is tested by the effect produced on a dog within a given time. Aconite is standardised by being injected into a guinea-pig. It will be remembered that Professor Cash, of Aberdeen, proved many years ago that there is no uniformity in the effects produced by the injection of aconitine into frogs, while the qualitative test put forward by Squibb, which de-pended on the tingling produced by touching the tongue or lips with aconite, is no longer in use. It will be noted that no test is given for ergot, nor is the least precaution advised as to the age of the product. This is surprising, seeing that Cushny's experiments in Ann Arbor University conclusively proved that old ergot is practically worthless.

The biological test for Liquor Hypophysis was quoted in the C. & D. (September 16, 1916, p. 43). Other biological agents are five serums and vaccine virus, and for some of these a method of testing is provided. So far as the B.P. is concerned there are no biological tests, but no doubt these will be recognised in future editions. Probably also by that time bacterial vaccines will be sufficiently proved to permit of their inclusion in Pharmacopocias. Another animal product is Suprarenalum Siccum, which consists of the cleaned and dried "suprarenal glands of animals which are used for food by nian," and contains 0.4 to 0.6 per cent. of eninephrine man," and contains 0.4 to 0.6 per cent. of epinephrine $(C_9H_{13}O_3N, \frac{1}{2}H_2O)$, "the active principle of the gland," but if assayed biologically it contains the equivalent of of levo-methylamino-ethanol-catechol cent. $(C_3H_{13}O_3N)$, which we know as adrenalin. The percentage of epinephrine is arrived at by comparing a fil tered solution of suprarenal gland, oxidised by manganese dioxide, with solutions of cobaltous chloride and gold chloride of varying strengths. The biological test consists in comparing the rise in blood-pressure produced in a dog by the injection of an aqueous preparation of the gland with that produced by a solution of C₉H₁₃O₃N of known strength. I am at a loss to know why by one test the active principle should only be 0.5 per cent. and by the other 1 per cent.; doubtless there will be some explanation. It may be stated that the description of the chemical mentioned above is an almost reprint of the monograph on Adrenalin in the B.P. 1914. There is no dry or liquid preparation of the suprarenal

gland in U.S.P., IX.

In connection with some of the preparations there occur the initials P.I., which signify Protocol Inter-The preface to the eighth Revision states that the recommendations of the International Conference as to the strength of potent medicines were adopted by the Committee of Revision "except in one or two instances." This statement is accepted in the preface of U.S.P. IX., and we must assume that the Committee This statement is accepted in the preface of Revision is speaking in earnest, and not in jest. What are the facts? In the summary of International Protocol requirements some twenty-four galenicals are mentioned, and of these not "one or two" are altered, but no fewer than eighteen, and in some of these the altera-tions are quite serious. These departures were made in the eighth revision. Some protests were taken at the time, but no attempt has been made to rectify the errors; indeed, in some cases these are aggravated. As an example, take Tr. Strophanthi. In U.S.P. VII, tr. strophanthi was 5 in 100 w/v, and in the B.P. 1898 $2\frac{1}{2}$ in 100 w/v. The International Conference recommended a straight 10-per-cent. tincture, which is equal to about 9 in 100 w/v. This nearly doubled the U.S.P. strength, and nearly quadrupled the old B.P., but, not content with this, both Committees recommended a 10-in-100 w/v tincture, which is equivalent to 11 per cent. Even if we could not be trusted to weigh our ingredients, it was surely a simple matter of calculation to ascertain that 8.9 grams in 100 c.c. of 70-per-cent. spirit was equal to 10 per cent. In this way we should have had a tincture identical with those of all Continental countries, and still have preserved our w/v fetish.

The adoption of "mil" in place of "c.c." has been referred to in the C. & D. Since the mil is graduated at A° C. and the c.c. at 15.5° C., it follows that unless we cool down our liquids by a freezing-mixture, measurements in mils must always be wrong. I confess I fail to understand the psychology of pedants

who make a promise to the ear and break it to the hope. Belladonna plaster and capsicum plaster are both now made of a rubber basis, and both are standardised, while a plain elastic rubber plaster is made of a mixture of rubber, resin, and wax with an absorbent powder spread on cloth. Methyl salicylate may consist of the synthetic oil, oil of wintergreen, oil of sweet birch, or oil of teaberry, but "the label must indicate whether the methyl salicylate has been made synthetically or distilled "from natural sources. This almost regularises a proceeding which has for some years been fairly common -namely, supplying the synthetic preparation as the natural oil, and labelling it as such.

A War Pharmacopœia Suggestion,

U NDER the actual war circumstances several medicaments are not only difficult to obtain, but are often of inferior quality and cost extremely high prices, states Professor Van der Wielen, Amsterdam, in the "Pharmaceutisch Weekblad." The pharmacist, who is bound by the Pharmacopæia, meets with many variations from the standards laid down. The modern Pharmacopæias have been composed in times of unlimited international intercourse, and preparations answering the tests in the Pharmacopæias, which were not obtainable in the countries themselves, could often be had of the quality desired from other countries. As a matter of fact, the standards laid down are in many cases much too rigorous. instance, in the case of quinine sulphate, the activity of the drug in combating malaria is hardly less satisfactory if it contains traces of cinchonidine and other alkaloids which at present have to be carefully removed from it. In present circumstances the question is, How far is it advisable to admit impurities in the medicaments mentioned in the Pharmacopæia?

One of the Dutch wholesale drug-houses has published the following list of articles, mentioned in the Dutch Pharmacopœia, which are not obtainable in a quality answering the claims of that Pharmacopœia; the impurities are indicated after the name:

GLACIAL ACETIC ACID.—Sulphur dioxide now and then, and oxidisable substances.

ALBUMEN.—Seldom entirely soluble.
Ammonia Liquida.—Heavy metals, chlorine, pyridine, sulphate and carbonate, empyreumatic substances.

AMMONIUM CHLORIDE generally answers the claims, but sometimes contains iron or empyreumatic substances.

Antimony Sulphide.—Arsenic.
Benzol always contains organic impurities, thiophen, and carbon disulphide.

BISMUTH SUBCARBONATE.—Chlorine, nitrate, and ammonia. BISMUTH SUBNITRATE.—Traces of chlorine and ammonia. BORIC ACID.—Sulphate, sometimes chlorine and calcium; the solution is never quite clear.

CALCIUM CARBONATE.—Chlorine and iron, sometimes aluminium and alkali carbonate.

Chloroform generally answers the claims, but sometimes contains organic impurities or the sp. gr. is too low. CHRYSAROBIN.—Too much ash.
CITRIC ACID.—Lead and sometimes sulphate.

CREAM OF TARTAR.—Calcium, ammonia, and sometimes

ETHER generally answers the claims; now and then the specific gravity is too low, also the boiling-point. It sometimes contains organic impurities and acetone.

Hydrochloric Acid.—Iron, sometimes other heavy metals.
Lead Acetate.—Iron, copper, and sulphate.
Lithium Carbonate.—Potassium and sodium, sometimes

also iron.

MAGNESIUM CARBONATE.—Heavy metals, iron, chlorine, calcium, alkali, and too much carbonate. The solution in nitric acid is not quite clear. NITRIC ACID.—Iron; the colour is often yellowish.

Paraffin, Soft.—Incorrect melting-point, a smell of petroleum, and organic impurities.

PARAFFIN, LIQUID.—Organic impurities, always fluorescent,

incorrect specific gravity and boiling-point.

Potassium Antimonium Tartrate.—A considerable quan-

tity of arsenic and traces of sulphate.

Sodium Bicarbonate.—Chlorine and heavy metals; some-

times more than the admitted quantity of carbonate.

SODIUM CHLORIDE generally answers the tests; contains ammonia and traces of iron occasionally.

SODIUM HYPOPHOSPHITE has a slightly alkaline reaction and contains traces of chlorine.

Sodium Phosphate.—Chlorine and arsenic.

SULPHURIC ACID.—Iron, sometimes also chlorine, lead, nitrates, and sulphurous acid.

TALCUM never answers the tests, and often contains large quantities of chalk and iron.

TARTARIC ACID.—Lead and sometimes potassium salt.
ZINC OXIDE.—Other metals, iron, arsenic, magnesium,

chlorine, sulphate.

Professor Van der Wielen suggests that the Committee charged with the revision of the Dutch Pharmacopæia should give its attention to these facts and make known, in which respects the Pharmacopæia tests may be deviated from while the present war conditions exists. He also suggests that the Committee has another and even a more important task before it-namely, that of bringing the fifth edition of the Pharmacopoeia into accord with the changes in national and foreign chemical industries after the war. Raw material from other sources will be made use of for the manufacture of medicaments; other methods will be followed in the preparation, and consequently the medicaments will contain impurities which thus far have not had to be guarded against. Attention should also be given to national industries in this respect. Absolute independence upon other countries with regard to the supply of drugs and chemicals is an ideal that can never be arrived at by small countries like Holland. It can only be attained by such countries as Russia, the United Kingdom, and the United States, which have at their disposal all the raw materials required for establishing independent chemical industries. The Committee charged with the revision of the Pharmacopæia could, however, encourage the national industry whenever possible. Something has already been done by the Committee, with regard to the products from the Dutch East Indies, but more can still be done.

After Twenty Years.

A Review of the Work done by the Imperial Institute, principally on the Commercial Side.

RECENT discussion in the House of Lords on the work of the Imperial Institute has suggested to us that it would not be inappropriate at this juncture to give a short survey of what the Institute is doing from the commercial side in the way of bringing into prominence the latent resources of the British Empire. We may

tute, the Technical Information' Bureau, which was first opened in 1914, is of primary interest to commercial men. The most important part of the work of this Bureau is to collect and critically collate all published information in regard to the production and industrial uses of raw materials, and it has gradually come to be recognised as a central clearing-house



THE IMPERIAL INSTITUTE.

recall that twenty years ago we described in The Chemist AND DRUGGIST the laboratories and research-work that were then being undertaken or in prospect. That was in 1897, shortly after the appointment of Professor

Wyndham Dunstan, F.R.S., as director of the Scientific and Technical Research Department, at which time the Institute was not the success that had been anticipated. As a matter of fact, since the formal opening by Queen Victoria in 1893 the Institute has been seriously handicapped for want of funds, and it will surprise many people to learn that the present Government grant does not exceed the miserable sum of 2,500l. a year whereas to carry on the work adequately 40,000*l*. or 50,000*l*. a year is wanted. The responsibility of the Imperial Government for the management dates from 1903, when Professor Dunstan was ap pointed Director and the Institute passed into the con-trol of the Board of Trade under the Act of that year. In April 1916 a further change was made, when a new Act was passed transferring

DRUG EXHIBIT IN THE INDIAN SECTION.

for information of character. Merchants and manufacturers in this country, as well as producers in India and the Colonies, have applied in increasing numbers for information on these subjects. In order to be able to deal more effectively with such inquiries, a special Branch of the Department was formed in 1914, whose business it is, in collaboration with the staff of the Scientific and Technical Research Department, to collect and distribute technical information. The work of this Branch was described in the C. & D. of April 24, 1915, and we may add that since then a very large number of inquiries have been dealt with as to materials and their possibilities from the Colonies and India. Moreover, initiative has been taken with British manufacturers and merchants

by means of special circulars to bring to their notice important raw materials awaiting a market. By far the most important have been those relating to the disposal of the Colonial and Indian materials which formerly went

the property and management to the Colonial Office and to Germany and Austria, such as palm-kernels, copra, providing for the appointment of a representative Executive Council. Of the several departments of the Insti-

from India to Germany, that country taking more than three-fifths; and when that market was cut off the Imperial Institute was instrumental in calling attention to the position and suggesting that the pressing of copra in this country should be considerably extended. Previously the United Kingdom had imported large supplies of coconut oil from Germany pressed from Indian copra. As a result of this action by the Institute large quantities of copra are now being crushed and utilised in the United Kingdom. We find that in 1915 the exports of copra from India to the United Kingdom amounted to 211,279 cwt., or about half the total, compared with 35,450 cwt. in 1914 and 29,843 cwt. in 1913; the other half was taken by France. In the case of ground-nuts the facts are similar, the Imperial Institute having done much to bring the great commercial value of this product to notice in this country since the outbreak of war. The principal market for Indian ground-nuts was France, 4,406,000 cwt. out of a total export of 5,337,000 cwt. being sent to that country in 1914. In 1915, however, owing to the disorganisation of the French trade produced by the war, only 2,267,000 cwt. of ground-nuts was exported from India to France, and the total exports from India fell to 2,592,000 cwt. Ground-nuts have not been previously crushed to any extent in the United Kingdom, and the Imperial Institute therefore took similar action with reference to this product as had been Markets for British Indian and Colonial Ground-nuts and their Products," calling attention to the supplies available and to the value of the nuts for edible purposes and as a source of oil and feeding-cake, was issued in 1915, and widely distributed to oilseed-crushers, merchants, and others in the United Kingdom. As the result of the publication of this information, considerable interest was aroused on the subject, and several British firms are now regularly crushing ground-nuts, and the imports into the United Kingdom, especially from West Africa, have been very considerably increased, although France is still the chief purchaser. There has, of course, been quite a "boom" in oilseeds since the war, and the present activity in the oil-crushing and allied industries in this country inclines to the belief that largely increased quantities of oilseeds will in future be taken by British firms-that is, if these firms can be assured that foreign countries will not be able after the war to secure a controlling position in the industries. It need hardly be pointed out that the enormous demand for vegetable oils and fats is partly owing to the rapidly growing requirements of soap and lubricant manufacturers, but, especially to the use of these products in the manufacture of butter substitutes. There is probably no group of natural products at the present time offering better prospects of success to the enterprising trader who finds and exploits new sources of supply. The hydrogenation process, by which liquid oils are converted into solid fats and used in making margarine, has also added greatly to their commercial value and importance. The successful efforts of the Institute's work in regard to palmkernels were dealt with in various issues of the C. d: D. at the time, but two other important examples may be instanced of seeds which, although extensively used on the Continent, have scarcely been touched by British manufacturers-i.e., sesame and mowra seed. Undoubtedly sesame-seed is sold in large quantities on the Baltic, and sometimes in Mincing Lane, but it is c.i.f. business to Continental ports. Previous to the war India had a large export trade in sesame, shipments in 1913 amounting to 112,200 tons, valued at 1,796,840%, but it went chiefly to France, where the oilfactories usually crush sesame and ground-nuts with the same machinery, and sesame oil is used there as a salad oil, for cooking, in the manufacture of margarine, and in canning-sardines, while the lower grades are used for soap-making. Small quantities of the seed have been imported into the United Kingdom from time to time, and used as an ingredient in compound feeding-cakes, but the crushing of sesame on a large scale is a profitable industry which has yet to be started in this country. Mowra-seed is another product which India sent to

Germany previous to the war—e.g., in 1913 the whole exports from India were valued at 364,0007., of which 310,0007., or 85 per cent., represented shipments to Germany. With the closing of the German market the trade practically ceased, and no new outlet has been found. British importers are likely to pay attention to mowra-seed in the future, as it is a very similar product to the illipe-nut, which reaches us, via Singapore, from Borneo and Sumatra. Illipe fat is used in chocolate and candle making. The fat expressed from mowra-kernels is an important article of food among the natives of India, and this suggests its use for margarine-makers. Mowra-kernels constitute 72 per cent. of the whole seed, and yield from 46 to 56 per cent. of a soft yellow fat which can be readily bleached. The Reference Room at the Imperial Institute contains samples of all these oilseeds, which are arranged and classified, and full particulars as to their commercial value are at once obtainable.

In an interview which a representative of this journal had recently with Mr. T. A. Henry, D.Sc. (Lond.), the superintendent of the laboratories, we were struck with the comprehensive system which prevails at the Institute in order to initiate the commercial utilisation of these raw materials. This is one of the main operations of the Scientific and Technical Research Department. The experience of work at the Imperial Institute is that success in initiating new industrial developments largely depends on the manner in which the case is prepared and presented to the manufacturer, and the extent to which the requirements of an industry and the manner in which it is conducted have been ascertained and studied. It is not enough to have obtained a definite result of scientific interest in the laboratory. It is also necessary to demonstrate practical application with precision and to indicate probable commercial results for the industry affected. The work of the Imperial Institute has therefore not been restricted to scientific investigations of raw materals, but has included a study of the uses to which they are put throughout the world. No better illustration of this can be given than the installation of the rubber-testing machinery which was erected a year ago in the basement of the Institute. It is really the outcome of an endeavour to raise the quality of plantation rubber to that of fine, hard Para, and to secure greater uniformity in different consignments. It need hardly be said that the present method of judging rubber in the Mincing Lane sale-room is crude and unsatisfactory, and the only way to secure accurate data is to carry out a careful scientific investigation of series of samples of plantation Para rubber prepared in different ways. The most trustworthy method of judging a sample of rubber is to vulcanise a portion and to submit the vulcanised product to mechanical tests, as by this means the behaviour of the rubber under manufacturing conditions can be studied and its technical quality and value determined. This work has now been in progress for some months, elaborate machinery having been erected, including a washing and mixing machine, vulcanising pan and press, vacuum drier, and a Schopper's rubber-testing machine. At the time of our visit rubber-testing was taking place. The test-pieces for use with this machine are cut from vulcanised sheet in the form of rings of standard dimensions by means of a series of circular cutting-knives, and these rings are evenly stretched during the application of tension. The machine can be used to determine the breaking-strain and the elongation at the breaking-point; the elongation with a fixed load; the load required for fixed elongation, etc. The machine is also fitted with an automatic apparatus for drawing hysteresis diagrams. It is anticipated that work on these lines, carefully and sytematically conducted, will throw considerable light on the effect of different methods of preparation on the quality of rubber, and will enable a method to be selected for use on plantations which will produce rubber of the highest possible quality. The testing of cement and timber is also conducted in these main laboratories in the basement, and definite results are being obtained. Boxwood, which was formerly procured from Turkey, and is indispensable for certain industries, is another item of interest, it having been found through the Institute that there is a similar kind of wood, possessing the same properties, in South

Africa. It may be pointed out that it is due to the Institute that West Africa has now a coal-supply of its own. A mineral survey was instituted some time ago by the Institute for the discovery of mineral deposits,



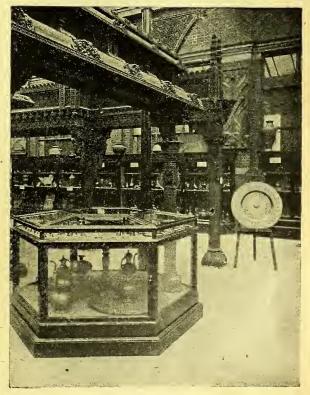
MINERAL EXHIBIT IN THE INDIAN SECTION,

and, as a result, a large coal-supply was discovered. A similar survey was undertaken in Ceylon under the auspices of the Institute, and this led to the development, among other things, of a new source of monazite, hitherto almost completely under the domination of Germany.

RESEARCH ON DRUGS.

There is always research-work going on in the investigation of drugs, but much more could be done in this direction were it not a question of "ways and means." In the laboratories -we saw many samples of Indian opium, investigations in regard to which are still taking place. A detailed report embodying the results of the researches conducted at the Imperial Institute during a number of years was published last year, and was the subject of an editorial article in The Chemist and Druggist of March 4, 1916. It has now been established that in the United Provinces opium can be and is produced sufficiently rich in morphine to render it suitable for medicinal use and the manufacture of that alkaloid. It is a curious fact that before the outbreak of war the Government of India was decidedly averse to allowing Indian opium to be exported to this country; but during the past two years a regular business has been established, and we should not be surprised if, during 1917, the exports are not double those of last year. Moreover, it is no secret to say that India now supplies the United States alkaloid-makers with her opium, and there is no doubt that she can in the future contribute the whole of the opium required for medicinal purposes in this country and, if need be, throughout Europe. The Imperial Institute investi-gations will assist in deciding what varieties of poppy should be grown in order to obtain the best yield of opium, and, as a result, we may look for opium of richer qualities year by year. The investigation of the composition and therapeutic value of the various Indian aconites is, from the scientific point of view, one of the most important

researches which have been conducted, but it is too well known to need more than passing reference. Detailed researches have been made in regard to Podophyllum Emodi, and it has been shown that Indian podophyllum can be employed for the same purpose in medicine as the root of the American plant Podophyllum peltatum; but the fact remains that pharmacy is still almost entirely dependent on the American drug, although we understand it has been under cultivation in India for some years past. We have previously detailed the steps taken by the Imperial Insti-tute to call the attention of British alkaloid-makers to Egyptian henbane. That was about 1903, but, all the same, Germany acquired predominant control of the raw material and the manufacture of the alkaloids. Since the war, however, the henbane-industry in Egypt has again passed into British hands, and large quantities have been shipped direct to this country to several alkaloid-makers, and the business now passes through Mincing Lane brokers. It is common knowledge that Germany took nearly the whole of the Egyptian supply before the war, and that when war broke out atropine was almost unobtainable. At one period of the war it touched 165s. per oz., but to-day sulphate can be bought at 115s. per oz. There is still room for a further reduction, as the raw material is obtainable on very favourable terms. The most important question is to what extent, if any, will the business again revert to Germany after the war. The security of supplies at the source should be the first consideration, and it is up to the authorities to see that the previous policy of "peaceful penetration" does not again prevail. The assistance which the Institute has rendered in regard to the supplies of ajowan-seed for the manufacture of thymol is fresh in our memories, and the steps which have been taken to prevent the extensive adulteration of Indian beeswax, and to ensure that supplies of pure wax will be forthcoming, are other instances of successful work accomplished. At present the work in hand includes



IN THE INDIAN PAVILION.

researches of possible Indian sources of potash, especially those in the Punjab salt range, which form a promising field of investigation. New Colonial sources of sand required in the manufacture of glass are another

occupying attention. work been Much has item done on Indian turpentine oil and rosin, although India produces a fairly satisfactory and oil. the price alone prevents regular imports to this market. The fact has been established that the oil cannot compete with the best grades of American and French turpentine oils, and it would have to be sold on its merits. Practically unlimited quantities of turpentine and rosin can be produced in India, but a commercial policy must be decided on. A year ago Dr. Drake-Brockman, of the Somaliland Medical Service, sent to the Institute for examination about twenty samples of myrrh, olibanum, and "gums." Botanical specimens of the plants yielding many of these products were also collected by the doctor and sent to Kew for investigation, and this work is still in progress. Two kinds of myrrh are found in Somaliland: "Ogo malmal," which is collected in the Haud, Nogal Valley, and Ogaden, in the far interior; and "Guban malmal," collected in the low-lying, sun-parched coast regions and on the maritime hills. The first-named was valued by experts at 5l. per cwt., but it was mixed with common drossy, valued at 55s. to 60s. in London. "Ogo malmal" is, of course, the old-fashioned so-called "Turkey" or Aden gum seldom seen now; while "Guban malmal" approximates closely to "Somali," which forms the bulk of our imports, and is worth 55s. to 60s. The question of the botanical sources of the two varieties has not been definitely settled, but Dr. Drake-Brockman states that herbarium specimens of the coast and of the inland trees were both identified at Kew as Balsamodendron Myrrha, Nees, while both trees are known to the Somalis by the name of "didin." If the two varieties of myrrh are derived from one species, the differences exhibited by the two products are evidently due to the different climatic conditions under which the trees grow. A number of solanaceous drugs from various parts of Africa, including stramonium-leaves from South Africa, are being examined or are awaiting investigation. It is interesting to know that the Transvaal could supply this country with all the necessary stramonium. The samples received all the necessary stramonium. The samples received at the Institute were rather below the commercial standard of French and Italian leaves, being dark in colour instead of a uniform bright green, but the alkaloidal content (hyoscyamine) was particularly good, being 0.49 per cent. of total alkaloid in the material as received, equivalent to a yield of 0.54 per cent. from the dried material. Samples of stramonium have also been received from the Sudan and Egypt, but they contained too low a percentage of alkaloid to be of any interest, and inquiries among manufacturing chemists have confirmed the conclusion that so long as adequate supplies of Hyoscyamus muticus are available in Egypt, they will prefer to use this plant rather than Datura Stramonium for the manufacture of atropine. Samples of anise, coriander, and white and black cumin have been received from Cyprus, but the quantities annually available are unknown. The samples are not quite up to the commercial standard of Morocco or East Indian, being too stalky, but they are quite suitable for consumption, and in view of the great shortage in the seed-crop of Morocco they would have been a useful stand-by at the present time. No doubt after the war this business will be developed, as with settled British stand-by at the present time. Government economic conditions in Cyprus should make rapid progress. Between 3,000 and 4,000 lb. of origanum oil is now annually shipped from Cyprus, and as it contains between 72 and 80 per cent. of carvacrol, its value is readily appreciated. Further investigations in regard to the source of origanum oil are still taking place at the Institute, and other minor essential oils from Cyprus, such as marjoram, myrtle, laurel-leaf, etc., have been Magnesite, sumach, and cotton are other examined. Cyprian products which are capable of development. Much work has been done on Ceylon aromatic-grass oils and cinnamon-bark oil. It is common knowledge that much of the cinnamon-bark oil which has reached this country in recent years has been adulterated, a great part of it being of German origin sold at low prices, in consequence of which a tendency has grown up to pay good prices for a pure oil, and the Institute examinations have been directed to this end. Ceylon is developing its own

acetic-acid business with the aid of the Institute, and already plant has been erected. The possibility of Egyptian cotton-stalks (which are available in unlimited quantities) as a source of acetic acid is being considered, and samples of 70-per-cent. acetate of lime are on view at the Institute. East Africa also affords enormous quantities of wood waste, and developments are only a matter of time. Pith from stalks of the Rhodesian sunflower-plant has also commercial possibilities, of which more may be heard later. Australian accroides gum (Xanthorrhœa resin) has been under trial as a varnish-resin and as a possible cheap substitute for khaki dye, but the Government is understood to have a prior claim on this at the moment. Samples of seal oil and sea-leopard oils received from Sir Douglas Mawson during the Antarctic expedition of 1912 are on view, and have been investigated.

INDIAN TRADE INQUIRY.

One of the special features of the new system under which the Imperial Institute is now administered is the formation of Committees to look after the interests of the great Dominions and Dependencies. Several of these Committees have been formed, including one for India, which numbers among its members Lord Islington, Under-Secretary of State for India, Professor Dunstan, Director of the Imperial Institute, and numerous prominent men connected with Indian trade; the Chairman is Mr. C. C. McLeod, President of the London Jute Association. This Committee has been requested by the India Office to conduct an inquiry into the possibility of increasing the usage of Indian raw materials in this country and in other parts of the Empire. To facilitate this work the Committee has appointed a number of Special Committees to deal with the various products concerned, such as drugs, resins and gums, food-grains, oilseeds and oils, hides, tanning-materials, etc., and well-known experts in these subjects have been co-opted to the Special Committees. The latter are able to draw on the scientific, technical, and commercial information regarding Indian produce accumulated at the Institute during the last twenty years, and are also taking evidence from the traders and manufacturers interested. This inquiry is entirely distinct from, but in a certain sense complementary to, that of the Holland Commission, which is now at work in India investigating the possibility of stimulating industrial activity in India itself. It may be confidently hoped that the outcome of the Indian Trade Inquiry now in progress at the Institute will be the transfer of the remaining large volume of trade in Indian raw materials, which used to go to Germany and Austria, to this country and the overseas Empire.

TECHNICAL COMMITTEES.

A number of Advisory Committees, consisting of merchants, manufacturers, and scientific men, have also been appointed to assist in the work of the Institute on the more important groups of products. Among those already appointed are Committees for timbers, minerals, silk production, rubber, and hides, and further Committees will be appointed as soon as possible, including probably one on drugs. The Association of Chambers of Commerce, which is represented on the Executive Council of the Institute by its President, Sir Algernon Firth, has also appointed a Committee on Raw Materials, whose chief work will be to consider improved means of introducing to British commerce and industry new raw materials from the Colonies and India which may be brought to light by the researches carried on at the Institute. These Technical Committees will afford the Institute a ready means of keeping in close touch with the trade and industry of the country.

More Money Wanted.

With the need for closer co-operation between all units of the British Empire, it is evident that the Imperial Institute requires more financial assistance, and although it has done much to assist commercial developments, it is evident that only the fringe has been touched. It is being realised more than ever that seience must combine with industry and that commercial men must call science to their aid far more than they have ever done before

It is only a few who have realised what the Institute has done for commerce, and it is "up to" business men to associate themselves more closely with their work in the future. There is no need to emphasise the fact that

for the manufactured product. This must never occur again.

THE HOLLAND COMMISSION,

to which reference is made on the previous page, has

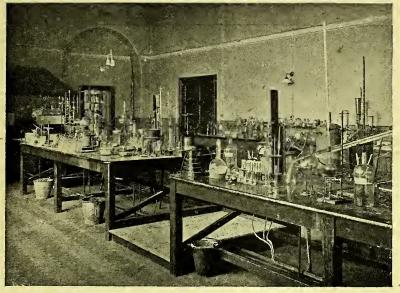
already commenced its work in India, and has appointed a number of Sub-Committees to deal with the more important groups of materials, to consider the results of investigations and inquiries already conducted by the Imperial Institute, and to obtain the views of leading merchants, manufacturers, and other users of raw products in India. Several chemical-manufacturers have already given evidence, including Mr. W. T. Grice, C.I.E. (Smith, Stanistreet & Co., Calcutta), who in his written evidence said:

"I think Government should do all in its power to assist new industries. Different industries must require assistance in varying forms; for example, where continual experimental work is necessary to work out what are practically secret processes, as in the chemical-industry, firms would probably do sufficient experimental work at their own cost to ascertain the possibility of success. Any assistance then furnished by Government might be:

nished by Government might be:

(a) Grant of money to cover the
erection and possible dismantling and subsequent re-erection of plant for working on commercial lines until the
most suitable forms of plant have been discovered.

(b) The supply of plant on the hire-purchase system. (c) If
the products manufactured were such as are required in any quantity by Government Departments, a
guaranteed purchase at a fair price of a portion or all
the factory output for Government requirements for a sufficient period as might enable the industry to get in touch
with the various markets. Where the industry is of importance to Government, expert assistance, if available,
should be placed at the disposal of that industry. If the



LABORATORY FOR EXAMINATION OF FIBRES, FOODSTUFFS, ESSENTIAL OILS, ETC.

gigantic changes are pending in the affairs of the British Empire from a commercial point of view, and the Institute is going to play a much more important part in these changes than many people recognise. This war, if it has done nothing else, has awakened the British Empire to the fact that within its wide circle there is to be found practically the whole of the raw materials necessary for manufactures, whether for consumption in this country or for export to foreign countries. A visit to the Institute brings this fact vividly home to one, and it is only necessary to walk through the Public Exhibition Galleries,

which draw attention to all the raw products that are available in the Dominions and India and the Colonies-materials which are not merely an interesting study, but are of important use to manufacturers in this country. There is no need to par-ticularise—the 'value of the Indian and Canadian collections alone, which are continually being augmented, cannot be over-estimated. These collections have proved to be of great service, not merely to the scientific investigator, but to the commercial man in search of materials for industrial pur-poses. The Indian section has been entirely reorganised, the object being to render the collections intelligible and attractive, and to enable schools to use them in connection with the teaching of the com-mercial geography of the Empire. Much more could be done in this direction were funds available. Our supineness in the past, or lack of appreciation of the Empire as

a source of raw materials, had enabled Germany to acquire a dominant interest in many fields, with the result that quite a number of industries had passed exclusively into her hands, and we had become dependent on that country



LABORATORY FOR EXAMINATION OF MINERALS.

result is satisfactory the concern should be debited with the cost of such services. If the Government-paid expert were assisting a private business I should allow no publicity. Where the industry was of a nature of a cottage industry, all possible publicity should be given."

How they Got the Goods.

Observations by Correspondents in India in regard to Supplies of Chemicals, Drugs, and Pharmaceutical Products during the War.

N THE CHEMIST AND DRUGGIST, 1916, we printed particulars of the trade of India before the war broke out, and these showed in a more remarkable manner than any other British trade figures that Germany and Austria had been buying very largely from India for a year or two before the war. This was a precaution on the part of our enemies. It was one way of ensuring supplies of certain articles which originate in that part of the world. Our compatriots in India were, like all other Britishers, oblivious of the Austro-German purpose, and although they had been buying many things from the Central Empires the excessive purchasing by our enemies did not become reciprocal, so that when the war broke out India began to feel the pinch, with the result that her capabili-ties and the energy and enterprise of her merchants and

MR. J. FRASER, F.C.S.

business-houses, met the difficulties, got the better. of them, and smoothed hardships in much the same way as our compatriots in other parts of the Empire have done. This is shown in the letters which we print from pharmaceutical mendifferent parts of India.

Bombay.

Mr. J. Fraser, F.C.S., general manager Kemp & Co., Ltd., Bombay, is, like the founder of the business (the late David Kemp), a Scot. He was apprenticed in Pitlochry, and after a short time in Edinburgh, where he passed the

Minor examination in 1882, Mr. Fraser went out to Bombay in 1884 as a junior assistant to Kemp & Co., and has been there since, in these latter days taking the place that Mr. Kemp vacated on his retirement shortly after Mr. Fraser joined the staff.

SIR,—It may interest some of your readers to know how the war has affected the trade in India with regard to supplies of drugs, chemicals, and many other articles in which we deal and which we have to import. I am therefore writing you a brief account of the position of affairs as it was at the outbreak of hostilities between Great Britain and Germany and the present outlook.

Like most other countries we were largely dependent on

Like most other countries, we were largely dependent on Germany and Austria for supplies of drugs and chemicals of many kinds, scientific glassware, rubber goods, and other commodities. With our supplies cut off from Central Europe, orders which had hitherto been placed there were at first turned over to English manufacturers, who in some cases were unable to undertake them, and in others rightly enough gave preference to their regular customers. enough gave preference to their regular customers. On account of shipping difficulties, Government restrictions, and prohibitions, goods which we regularly purchased in the United Kingdom became scarcer and scarcer, and we were compelled to conserve our stocks as much as possible and avoid selling to dealers. As shipments from the U.K. became less and less frequent and the number of items on the prohibited list increased, we had to look to other sources for supplies, and naturally turned to the U.S.A. for salicylates, salol, phenacetin, bromides, and other chemicals, also cotton-wool, lint, bandages, and surgical dressings, with the result that American brands are now very much in evidence, and they are likely to remain so.

so.

For a number of years past a considerable trade has been carried on between India and Japan, but, as far as the drug-trade is concerned, it has been confined chiefly to camphor, menthol, peppermint oil, iodoform, iodine, and iodides. Shortly after the war commenced, however, our Eastern ally sought to gain a footing in the markets of

India with other products which she manufactures, including bleaching-powder, Epsom salts, copper sulphate, iron sulphate, acetic acid, surgical instruments, rubber goods, glass syringes, and bottles. Every mail from Japan brought letters and quotation-sheets from manufacturers in different parts of the country anxious to do business with us, and as time went on they increased in number. Japan's push and enterprise is likely to be rewarded by the permanent establishment of her position in our markets. Her geographical position is also in her favour, the sea distance being shorter than between home ports and ours, and she being shorter than between home ports and ours, and she

being shorter than between home ports and ours, and she possesses a large merchant fleet.

Indian industries, as far as our trade is concerned, are in their infancy, but, with the spread of technical and scientific education, there is hope that in the course of time the country will be more self-supporting. India possesses large natural resources, mineral and vegetable, which at present are only utilised to a very limited extent. Bombay, as is well known, is the centre of a great mill-industry where large quantities of crude drugs for sizing and other nurposes are required, nearly all of which are imported. purposes are required, nearly all of which are imported. A local chemical-works has lately commenced the manufacture of Epsom salts, sulphuric acid, and other products. tacture of Epsom salts, sulphuric acid, and other products. A short time ago the former could not be purchased below 25s. per cwt., on account of the stoppage of supplies from home, and the mill companies were forced to pay this price or stop their work. The Eastern Chemical Co. is now in a position to meet all demands for the crude salt, and also makes a recrystallised quality for chemists which is quite equal to anything hitherto imported, and is lower in price. Alcohol has been distilled in this country from crude sugar or spent sugar-cape for a number of years and although

or spent sugar-cane for a number of years, and, although suitable for many pharmaceutical purposes, could not be used for making Eau-de-Cologne and other perfumes on account of its heavy odour. As a result of experiments carried out by an Indian scientist, alcohol is now produced in some of our distilleries free from odour, and equal, if not superior, to the grain alcohol usually imported from Europe. It is distilled from the flowers of Bassia butyracea (Mowra), which contain a large percentage of saccharine matter. These flowers have from time immemorial been used for the production of potable spirit for native consumption, which is believed by many to be less injurious than much of the imported whisky, brandy, etc., found in our bazaars.,

found in our bazaars.

These small beginnings give us hope for the future, but for years to come India will be dependent on other countries for her supplies. Until the war is over, and probably for a long time afterwards, imports from Great Britain must necessarily be greatly restricted, and this provides an opportunity for America and Japan to make a bid for our trade. At present the scarcity of shipping in the former country and abnormally high rates of freight are against her. Japan is in a more favourable position as regards proximity and carrying facilities, and, to judge from the enterprise she has already displayed, she is not likely to miss her opportunities.

miss her opportunities.

KEMP & Co., Ltd. J. Fraser, General Manager.

The writer of the next article does not confine himself to any particular city, but views India as a whole, and entitles his remarks

A Retrospect and Prospect.

In the dark days of August 1914, the question of obtaining supplies was the uppermost thing in all the dealers' ing supplies was the uppermost thing in all the dealers minds. Anyone conversant with Indian affairs will appreciate that the rumours which flew around the bazaars did not tend to allay the Indian dealer's mind. Certain English firms cabled their travellers and agents cancelling pricelists, and this, followed by the Government of the U.K. prohibiting exportation, sent a rising market up by leaps and bounds. A few dealers attempted to corner drugs, notably quinine sulphate and "tabloid" quinine, but were not successful were not successful.

At the outbreak of war the stocks of drugs held in India were, with few exceptions, very large, and the Indian dealers would not order as largely as they had been accustomed to, as they were afraid of the market going down; besides, the Suez Canal being blown up by rumour with great regularity added to their nervousness. When the difficulty of obtaining supplies from England was acute, India turned to America and obtained a little from there, but only sodium

salicylate and salol in any quantity. As time went on, America has supplied quite a quantity of drugs and chemicals, and is now regularly supplying heavy chemicals as used in the mills. There was a serious shortage in Epsom salts, which are used largely in the mills, and formerly were supplied by Germany. Fortunately the works of the Eastern Chemical Co., Ltd., Bombay, were nearly completed, and soon after the war began were able to supply Epsom salts and sulphuric acid sufficient to meet the demand.

demand.

The country that has made the greatest inroad into the Indian market is Japan. Not only in drugs, but in other trades, Japanese travellers were soon on the scene, and are now regularly supplying goods which were formerly supplied by Germany, particularly iodides, bromides, and cheap sundries. The glass-bottle famine was also acute, but here Japan stepped in, and in course of time supplies arrived, but they are very inferior to the English glass bottle. Freights from Japan are very cheap, regular sailings to India have been established many years, and the steamship companies are heavily subsidised by the Japanese Government.

Japan must be considered by the English manufacturers as serious a competitor as Germany was prior to the war. Some idea of the Japanese hold on the Indian market can be obtained from the following statement, which refers to the value of the merchandise exported by Japan during three months, April 1 to June 30, in each of the years mentioned.

1914. 1915. 10,276,656 15,578,365 486,051 1,512,572 1,512,572 3,432,182 Value of glassware, Rs.

With regard to the future of English drugs and chemicals With regard to the future of English drugs and chemicals in India a great-deal depends on the terms of peace, but English manufacturers who have done business in India for any length of time must be well aware that price only is the deciding factor with the Indian buyers. Quality is not considered by 99 per cent. of them, the label on the bottle being the main point, and in the absence of a Food and Drug Act in India, their salvation lies in a preferential tariff in their favour, otherwise Germany, after the war, will soon have back her old position on the Indian market.

Calcutta.

Writing early in December last, Mr. Frank Ross (Calcutta) said as to German products so great were the stocks held in Calcutta that he bought on November 30 40 lb. of Merck's absolute alcohol at Rs. 6 per lb. "Quinine has been right down; Java, which cost Rs. 37-12 per lb., to land here, touched Rs. 25 (a loss of Rs. 12-12 per lb.), so tight was ready money. With the Europeans business has been excellent, the great prosperity of the jute, tea, and coal industries causing much surplus cash to circulate. In bottles Japan is very busy, but, as with so much that comes from that country, there is a strange lapse in quality where repeat business is placed. Representa-tives from several of the great British houses are here at present. Goods are coming forward splendidly from England, compared with what they did twelve months ago.

At the time these communications were written the difficulties of freight to the East were certainly as great as they have been any time these past two years, but it is clear that India is getting practically all that she wants.

Disinfecting Meningococcus-carriers.

Disinfecting Meningococcus-carriers.

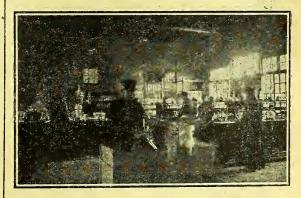
A Contribution from the laboratories for cerebro-spinal fever at the Royal Army Medical College, London S.W., which appears in the "British Medical Journal" (1916, II., p. 673), deals with an investigation undertaken in regard to the disinfection of carriers of meningococcus infection. The proportion of carriers has been found to be very large in all outbreaks of cerebro-spinal fever, and the duration of the carrying period varies largely with the degree to which the nasopharyngeal secretion is infected by the meningococcus. A method of disinfection which has been tried with success involves the local treatment either by direct application of a 1-per-cent. solution of chloramine or by subjecting the patients to inhalation of a steam-spray charged with zinc sulphate. Some cases are, however, difficult to cure by this means, although a large proportion of the chronic carriers can be definitely freed of the meningococcus by this treatment in a comparatively short space of time. The apparatus employed is known as the "Falmouth" atomiser, and the carriers are shut up in a small space the air of which has been saturated with the medicaspace the air of which has been saturated with the medicament by means of the spray.

Tokio Industrial College.

THE entrance of Japan into the modern world was accompanied by remarkable development of scientific and technological education in that Eastern Empire. The Tokio University was one of the first institutions in which English and European men and methods were employed for modernising Japan, and in due course



Japanese professors replaced those who had initiated them into the work, so that all such institutions have become essentially Japanese, except that they keep in touch with advances and progress that are experienced in other parts of the world. The Japanese have been keenly alive also to the importance of scientific education in aiding industrial development, and their foresight and wisdom in this matter have been repaid by the rich reward their indus-tiles have received during the past two and a half years while the European war has diverted our energies to special work, and has prevented the production of certain goods with which the Japanese were not unfamiliar. We tell in the previous column what India has been getting from Japan,



and for some time back several business-houses in Japan have been advertising in The Chemist and Druggist, and a working connection has been established between the Island Empires of the East and the West. Among the institutions which have been training men in the technicalities of chemical products is Tokio Industrial College, which takes students from the time of their leaving school and trains them right up to University point. The College is well equipped, and its apprentices' school for the juniors is distinct from the more advanced sections. We reproduce photographs of two of the laboratories.

AMERICAN DRUG-TRADE.—The total value of the dyes, chemicals, drugs, etc., imported into the United States in the ten months ended October 30 last was \$109,422,582, against \$70,142,738 in the corresponding period a year ago and \$68,744,756 in 1914. There was a falling-off in the imports of opium, which totalled only 80,870 lb., of the value of \$567,967, against 305,755 lb., valued at \$1,490,220, for the corresponding period of 1915.

Chemical and Pharmaceutical Supplies in France.

(By Our Paris Correspondent).

It is only when the commercial and industrial history of the war comes to be written in detailed and accurate fashion that full justice will be done to the remarkable effort made by our French neighbours. With their principal ironfields, many of their colliery districts, and their chief manufacturing provinces occupied by the enemy, they have organised an output of munitions which would do them credit even were their territory intact and their frontiers inviolate and this in spite of the immediate and wholesale reduction of man-power which inevitably accompanies mobilisation in a country where conscription is an old institution.

How this has been done—how the huge supply of chemicals essential to the manufacture of explosives, in addition to those necessary to replace those imported from Germany before the war, have been obtained, cannot now be detailed. These are "questions interesting the Defence Nationale." of which, for the present (as Gambetta said about Alsace-Lorraine), we must "always think, but never speak." Some general indications are, however, public property. Our readers will remember that an "Office Pharmaceutique et Chimique" was founded in the autumn of 1914 to facilitate the development of French manufacture in these interesting lines. How this came about is worth relating,

as Professor of Organic Chemistry at the Paris School of

In September 1914 M. Béhal, known before the war

PROFESSOR BEHAL.

Pharmacy, went over to England to see what resources the United Kingdom could offer her Ally in the way of chemicals and medicaments, of which the shortage in France was then acutely felt, owing to the abrupt cutting-off of communications with Germany. It is an open secret that the result of his inquiries was distinctly discouraging. He returned to Bordeaux (then the official capital of France) to hand in his report to the authorities. The Senate was sitting there, and Professor Béhal thus ran across his old friend M. Astier, the ex-retail pharmacist of the Avenue Kléber, Paris, who went into politics after making his money in business, and now sits in the Upper House. The nature of their conversation may

easily be imagined. The situation of the French manufacturers, deprived of their men by mobilisation, of their raw material, fuel, etc., by the paralysis of railway and other traffic, of their semi-manufactured or completed stocks by military requisition—of the grave consequences likely to ensue, not only as regards the civil population but the army itself—were duly discussed and deplored.

France is, and has been since the war, full of such consultations and such complaints. But these two men, as their friends already knew and the country has since learned, are individualities of intelligent and decided initiative, and they resolved to act. What a disheartening business such a crusade in favour of commercial enterprise is in days of military dictatorship those who have taken part in them best know. The two friends interviewed Ministers of State, and even the President of the Republic himself, ere they obtained permission to found the Office Pharmaceutique et Chimique. But the decree authorising its formation was dated less than a week after they met, and, what is still more to the point, Professor Behal was nominated Director. He gave some personal account of the scope of his institution, soon after its formation, to a C. & D. representative. Since then his Technical Committees have sent in twenty-five reports on the past, present, and future of the French chemical and allied trades to the competent authorities. But as to the nature and contents of these reports, confidentially communicated, he observes a discreet silence. To act otherwise, he frankly admits, would be alike unpatriotic and uncommercial. The preparations made by the Germans for "after the war" trade campaigns must not be assisted by present and premature divulgation of successful effort in various directions, much less by the publication of detailed statistics.

One point is certain: that the results already attained are most creditable to all concerned—to the Professor himself, to Senator Astier, the Vice-President of the Managing Committee, and to this Committee, which includes such well-known names as those of M. Guignard, ex-Director of the School, Professor Haller, MM. Branet, Chapsal, F. Faure, Painlevé, Weiss, and others.

Its work, as may be imagined, is not by any means entirely scientific. To assure a regular coal-supply, to release from military service all men absolutely essential to the manufacturing industry, to obtain priority of transyort on overcrowded goods-trains for the indispensable raw material, to distribute fairly and equitably among clamouring manufacturers limited stocks of certain goods -all this is rather the affair of the business man than of the scientist. In business we judge principally by final results, and on the credit side of the Office Pharmaceutique may already be inscribed the creation of the carbolic-acid and coal-tar industries, assistance given to the synthetic manufacture of phenol, the increase in production of picric acid and other nitro-phenols. Not that the purely scientific side is neglected. Much technical advice is necessarily given, not only in the above larger questions, but in general matters, such as how to purify this product, by what some material, temporarily lacking, can be replaced, and so on. Some 18,000 letters, it is stated, have been sent out since the Office was founded.

The question naturally arises, "Has France arrived at a point when she will figure as an exporter and capture enemy trade after the war?" It is premature to give a decided answer. The lack of actual exports proves little or nothing. The desirability of exporting many products in war-time is seriously questioned, and more especially the opening-up of new markets until a really reliable and steady output (most difficult of all things in war-time) is secured. But the general impression is that the home market is sufficiently supplied in most cases, and that it is highly probable that with the resumption of normal conditions (the return of manpower to manufactures, etc.) some appreciable margin might be offered abroad. The question of competition in price, etc., can hardly be discussed till such normal conditions are fully restored throughout the world, and new conditions can be fairly judged and summed up.

The important part taken by the Office in the revival has tempted me to dwell upon it at some length, but there are not lacking other straws to show how the wind is blowing. The development of the St. Denis Chemical Works, near Paris, is often alluded to, though we are not aware that any official and reliable statistics are The Société Chimique des Usines du Rhône is another very important enterprise, producing as it does many pharmaceuticals of which Germany had practically or actually the monopoly—e.g., antipyrin, pyramidon, aspirin, salol, sodium salicylate, and methyl chloride. One of its works near Lyons employs some 300 men; a second exists near Geneva. Its profits, about a million francs annually from 1906 to 1910, reached twice that figure in 1910-13, to drop nearly to their original figure in 1914. Then the great effort was made. Besides the production of the pharmaceuticals already alluded to, the manufacture of explosives was taken up, and a special factory built, with the aid of the War Office, in Southern France. It cost 10,000,000f. (nearly 400,000*l.*), and is now in full working order. The consequence is that the 1915 balance-sheet showed profits amounting to nearly 5,000,000*l.* (say, 200,000*l.*).

Another sign of the times has been the formation of a National Dye and Chemical Company, with a capital of forty million francs (say, 1,500,000l.). A group of manufacturers (of chemicals, dyes, paper) and many kindred industries, reinforced by a certain number of scientific men, organised a few months ago a "National Dye Syndicate," with the idea of substituting French for German products. This syndicate secured from the Government and otherwise a number of works founded since the war and a quantity of plant, which it proposes to hand over to the new company, and put itself into touch with the Government with a view of directing its production according to national needs—dyes, chemicals, and explosives. The Government would naturally grant exceptional facilities as to badging men to a company which agreed thus to vary its output temporarily and regularly. Commercial negotiations were also entered into with an English company, constituted with the aid of the British Government, for the supply of raw and semi-manufactured dyestuffs, and the idea of an "Inter-Alfied Dye Company" is mooted. The Board of Management comprises MM. Agache, Bertrand, Bollaert, Germiny (Count George de), G. Griolet, G. Guiot, P. Jeancard, E. Lambert, T. Laurent, P. Lederlin, E. Ledoux, R. G. Lévy, Louis Lion, René Massé, Einest Métivier, and Jean Neyret.

A Gifted Orderly.

As evidence of the advanced state of pharmaceutical service in the Army, the following extract from the letter of a friend, somewhere in somewhere, may prove of interest. His reference recalls an episode which occurred during the worst of the weather and the hardest of the training, when a man in the hut took measles, and the other occupants got a three weeks' rest from all drills, fatigues, etc., till they were certified free of infection:

"Had a day in bed yesterday, my first off parade since I joined his Britannic Majesty's Forces—on my own account, I mean: the measly hiatus from drills was an act of Providence. The reason therefor was a splitting head, a sore throat, and a decidedly unsettled interior, all of which symptoms I faithfully detailed to a somewhat incredulous-looking medico on his rounds. He prescribed a day in bed, return to duty to-day, and instructed his orderly to give me a dose of some stuff or other of which I forget the name. Now, this orderly is a great pal of mine; his qualifications for the job of medical orderly are that he is recovering from a wound, and is therefore only fit for light duty. He is the man who kept painting are that he is recovering from a wound, and is therefore only fit for light duty. He is the man who kept painting a lad's rheumaticky knee for a week with laudanum under the impression that it was iodine. When we found that the particular stuff the doc' prescribed 'smelt 'orrid,' we niffed around the other bottles, and finally made up a nice, tasty little mouthful of chlorodyne and bismuth. Despite or because of this, as the case may be, I was back at work again to-day, still somewhat besnivelled as to the nose, but otherwise pretty much normal."—(195/1.)

What is thermalene gas, which is recommended as a substitute for acetylene for welding, writes a correspondent.

The War and a Country Pharmacy.

By "Countryman."

How has the war influenced your pharmacy?" was a question asked me by a man who is not usually inquisitive about my business affairs. It stuck; I began to think about the matter, and the first thought naturally was of Harold, who was formerly general help to the establishment. For is he not somewhere in France, fighting in one of the Territorial battalions that filled the blank between the Old Army and the New? The nation borrowed Harold at the beginning of the war, just as the football club (represented by deputations of citizens old enough to know better) used to borrow him in those far-off days when football boots and clothes used to materialise surprisingly from the pharmacy cellar, and his employer used to suggest that perhaps the deputation would pay Harold's wages, Saturday being a very busy day. Precedent requires that he should return musically in a char-à-banc.

Perhaps that will not be quite the way of it. Anyhow, the return of Harold is a problem. He was kig before; we shall certainly be too small now. I foresee military efficiency dealing with empties and stock, then seeking what to do next. Football and fighting are great matters, but they do not lead up to the compounding of physic. How can justice be done for the man who went away a boy?

Writing of the New Army leads directly to the Old. Jacob was an errand-boy whose great awkward frame

outgrew his poor, well-tended clothes. Good nature and health were written all over him, and the latter characteristic was so obvious that his red cheeks from very inflammation became each as a boil. This was years before the war, and Jacob was a Cold-stream Guardsman of four years' serbefore vice faced the Germans at Mons. No wonthe $_{
m der}$ enemy never got anywhere where he near wanted to go with



Jacob buys toothpaste,

a little army of this material in the way. Jacob's size is still concealed by awkwardness, for now they do not improve on nature in the Army. He was buying toothpaste when recognised; the errand-boy would not have wanted toothpaste. I have often thought that the Old Army did for the poor man something that the University did for the rich; not exactly in the matter of toothpaste, but in effecting a growth and change.

Harold was succeeded by a porter rejected from the Army for flat-foot. But he was able to re-enlist in the R.A.M.C., where flatness of the kind may perhaps lend steadiness to the stretchers. And a man who has whitewashed a pharmacy cellar is not wholly without experience

among medical substances.

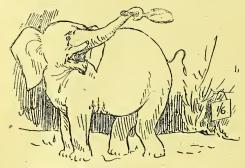
But the country pharmacy has been chiefly tided over by woman labour. It is possible that in some quarters women do not quite get fair play owing to the too great expectations of employers. Λ girl who can render excellent help in some ways may be hopeless in other directions. Precisely as men differ in capabilities and possibilities, so do women bring individual capacities for usefulness, and it is as unreasonable to dismiss them with sweeping generalities as it would be to judge men as a class from a narrow experience. It is certain that the trained woman compounder is quite capable and reliable in dealing with the general run of National Health Insurance work, and building upon that basis soon becomes an all-round satisfactory dispenser. Tidiness and industry are more instinctive with women than with the generality of men, and so is arrangement, to the benefit of shelves and windows. I hope that the pharmacy may never be without some feminine employé to see to the issue of ample glass-cloths and dusters. To want another glass-cloth, and to find that the whole stock has been sent to the wash, is enough to stagger the moral equilibrium of the soundest.

Women have a babit of arranging a window or shelf on the principle of the cottage mantelpiece rather than in massing the stock to be seen, and they hang handmirrors in most unexpected places for their own convenience. But these are trifling differences that do not

matter at all.

Saleswomanship is as different from salesmanship as intuition differs from logic, and its results are better on the till-roll. Moreover, it is a more evenly distributed characteristic than the corresponding masculine quality. If your least capable lady helper has a confusion of brushes and toilet etceteras before a lady customer, or a man buying for a lady, it is better to go away. Ignore the method in the result! She will probably be found to have done better than your own average under similar circumstances.

Do you know there are people going about actually desiring White Elephants? Lady assistants know, and if your White Elephant has lost its price-ticket, you will



The White Elephant has lost its price ticket.

soon probably be seeking the customer with consciencemoney in an envelope. It is better not to ask the figure: your customer is satisfied. Even the Entirely Impossible will be sold for a price.

I am inclined to think that shopkeeping of most kinds is an occupation for which women are peculiarly suitable,

and I make no exception of pharmacy.

With regard to prices, the pharmacy has rarely had to purchase supplies of any extent at the highest figures. A preference on the part of the proprietor for ample drugsupplies, his confessedly unsystematic stockkeeping, and the falling-off in the consumption of many articles with the rising prices were factors that counted.

In that month when the price-lists first showed that salicylate of soda stood at 7s. 6d., little Samuel, the errand-boy, unpacked one single pound of that expensive commodity, labelled P.P. A resemblance to Something he had seen Somewhere troubled him, and shortly afterwards a large bottle of salicylate of soda appeared at the head of the cellar steps—an astonishing vision, eclipsing the larger portion of Samuel but visibly supported on his knickerbockered legs. With what joy the tender container was rescued after so perilous a journey, and how high the salicylate ultimately soared! Sulphate of quinine, potassium bromide, bismuth carbonate lasted long; resorcin and aspirin are with us still, the jar of permanganate of potash went back to a wholesale house for a satisfactory consideration; and a rather heavy buying of copper sulphate in 1915 saw 1916 through at

higher figures. But we had to buy a little potassium bromide at 26s. shortly before the drop in value.

The customers were increased in numbers by the presence of billeted soldiers over several months, and very welcome they were. Every counter is an observation post from which the public may be studied. He would



It is good for indoor men to face the weather out of doors.

be a shallow observer who did not record a smoothing away of old differences, and a plainer human interest in each other. Perhaps this interest was always there; it has been apt to show in times of illness or bereavement, but in the days when all are anxious and so many bereaved, differences of social position, religion, and politics seem to have vanished in a common human understanding.

A country public is invariably a kindly and not a very exacting one, and the task of those who serve it is even easier when the understanding becomes closer than before. The Press prepared the public for the rises in prices, and these have been accepted as a rule without question. The cancellation of enemy marks and the shutting-out of German goods brought the Equivalent into its own. May it keep it for ever! The district in which the pharmacy is situated being remote from danger of Zeppelins, special constables have hardly come into their own. Not so the Volunteer movement, which, though quite un-pharmaceutical in its local developments, has brought both variety and monotony into the lives of many.

Is any mortal thing quite so monotonous as constant repetition of military drill, now lasting for many of us into the third year? The other side of the matter has been the cheery companionship of one's fellows, the variety of duties that have arisen, and the sense of sharing for a time, though infinitely less in value and degree, the same service as the King's soldiers. Surely in these times that is a very high honour indeed to be bought with comparatively so little of difficulty or sacrifice. The duties have involved Sunday work to relieve pressure at ordnance yards, and the guarding of railway and Government properties. It is good for indoor men to face the weather out of doors, to sleep on a guard-room floor, and to cook their own food upon occasion. At one familiar post, the night and the mist hide a wide valley, marked by Saxon, Roman, and the Men Unknown, while close at hand the wind sounds in the stays of a great wireless station, and messages from distant seas and lands are ticking away in the little glimmering hut. It is a fine opportunity for thought in the presence of history and miracles, and it is good to feel that the duty of the moment is in the service of Liberty. Also it is a great change from the pharmacy.

Edmund Knowles Muspratt, LL.D., F.C.S., etc.

President of the Society of Chemical Industry, 1885-1886.

THE name of Muspratt is one of the most familiar in connection with English chemistry and chemical industry. nection with English chemistry and chemical industry. In the student days of many of us Sheridan Mus-pratt's "Chemistry" still held sway, and his exposition of technological chemistry anticipated later developments of applied chemistry which Thorpe and others have produced. Dr. Sheridan Muspratt was the eldest son of Mr. James Muspratt, the father of the alkali-industry in Lancashire, and his brother Mr. E. K. Muspratt was the youngest son. Mr. James Muspratt as a boy of fourteen commenced an apprenticeship with Mr. Micheltree, wholesale chemist and druggist, Dublin. Owing to his father's death towards the end of his apprenticeship James Muspratt went abroad, but returned to Dublin in

a few years, commencing business there as a chemical-manufacturer in a small way, and in 1823 in a settled down in Liverpool, where he commenced to manufacture soda by the Leblanc process. The fact that his grandson Mr. Max Muspratt, Max present Lord Mayor of Liverpool, and son of Mr. E. K. Muspratt, is chairman of the United Alkali Co., Ltd., is sufficient indication of Mr. James Muspratt's success.

Our present purpose is to refer more fully than we did in the *C. & D.* recently to "My Life and Work," the autobiographical volume which Mr. E. K. Muspratt published through Mr. John Lane. The book is interesting as a family record, embracing as it does the life of a Liverpool man who has been pre-eminent in the foundation of the University of Liverpool, but it touches, besides, the lives and work of many eminent men, including politicans and scientists. As a lad Mr. Edmund Muspratt was sent to Giessen, succeeding two brothers who had

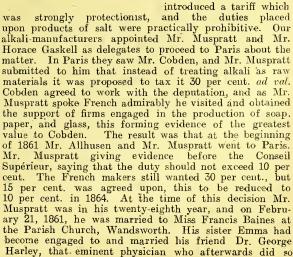
also gone there to study chemistry and other subjects, Liebig being the Professor of Chemistry. This was in 1850, by which time Seaforth Hall, the residence on the Mersey which James Muspratt had built, had become the visiting place of many distinguished guests, such as Samuel Lover and Charles Dickens. It was the gathering ground also of foreign scientists. The chapters of the book devoted to Giessen are most interesting, for Mr. Muspratt was a friend of the Liebig family, and the life that he lived made him go through all that German students had to. He dined every Sunday with Liebig, and had other means of becoming intimate with Germans and their ways. He tells us that

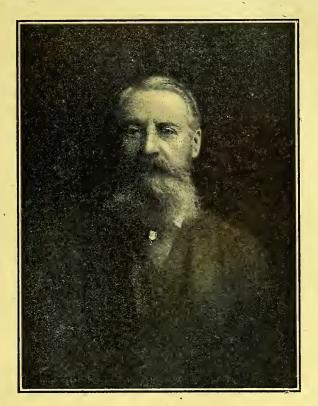
"At Liebig's house, besides more formal meetings, many interesting people came to visit him or the family. He played whist nearly every evening with Pfeufer, Dingle-stedt, von Sybel, or Riehl, and these evenings are pleasantly referred to in Dinglestedt's 'Münchener Bilderbogen.' There assembled, he says, 'a tall man, a stout man, and a great man.' I was the tall man, Pfeufer the 'dicker Mensch,' and Liebig the great man."

Mr. Muspratt had every inducement to follow medicine as a profession, but he had no great liking for the sub-

jects, and his special desire was to equip himself sufficiently so as to become a real helper to his father. The training included many periods of exceptional personal and historic interest. For example, in August 1855, he went with Liebig to Paris, where there was an exhibition somewhat behind that of London in 1851. Liebig was invited to accompany a special party, including Louis Napoleon and Queen Victoria, with Prince Albert. Mr. Muspratt was with Liebig, who then came to London, where he met Thomas Graham, Hugo Müller, and other old pupils of Liebig, who had Muspratt with him all the time, so together they visited Osborne and other places, finishing up at Seaforth Hall.

It had been Mr. Muspratt's intention to continue his chemical studies under Bunsen at Heidelberg, but Liebig advised that he should go into business at once to see how he liked it. So in the autumn of 1855 he commenced to assist his father in the management of the Woodend and Liverpool works. He had not been long there when he found it necessary to have some research in regard to copper, and the only place he could get this was at Owens College, Manchester, where the chemistry professor was Dr. Edward Frankland. The Taboratory Mr. Muspratt had to do his work was the cellar Richard Cobden's house, and the only other worker was W. J. Russell, who was occupied with gas-analysis. Many more incidents of this nature autobiography, bu nature occur in the but bv the chapter seventh touched larger interests eame into Mr. Muspratt's life, and he began to take an active part in the affairs of men. In 1860 the French Government





MR. E. K. MUSPRATT.

much in regard to the introduction of pepsin, and whose name is kept bright in medicine by his son, Dr. Vaughan Harley, whose sister, Mrs. Alec Tweedie, also inherits Muspratt abilities. It was to Mrs. Harley that we owe, in a sense, Liebig's extract of beef. When she, as Miss Emma Muspratt was staying with Liebig at Munich she had a fever, and when this abated the doctor found her so weak that she could not assimilate food. Thereupon Liebig prepared for her a cold extract of meat (a little hydrochloric acid being used in the process), which was assimilated, and her health was completely restored. In one of the chapters of "My Life and Work" the formation of the Liebig's Extract of Meat Co. is described. It was a merchant from Hamburg that had called on Liebig in regard to certain matters mentioned in his "Letters on Chemistry" about products from bones, hides, etc., and suggesting how an extract of meat could be produced cheaply, who really started the matter:

"This Hamburg merchant then asked Licbig to give him "This Hamburg merchant then asked Licbig to give him more particulars as to the plant that would be required. Liebig replied, 'I am not competent to do this, but will give you a letter to Dr. Pettenkofer, the Court Apothecary.' When, after several interviews with 'Dr. Pettenkofer, he returned to Baron Liebig, he was quite satisfied that he could undertake the production of this article at Fray Bentos, but in order to ensure its commercial success he desired to make use of tho great chemist's name, and to form a company called 'Liebig's Extract of Meat Co.' After some hesitation Liebig consented, on condition that a competent chemist should be appointed to superintend the manufacture, and that a sample should be taken of each shipment and sent to Munich for analysis. This was accordingly done, and, as is well known, many people both in England and on the Continent only know the name of the great chemist in connection with the extract."

All Mr. Muspratt's observations in regard to Liebig are of great interest, and recall events in chemical progress that few are now personally familiar with. visits to Lille in the 'fifties are particularly interesting. Then Kuhlmann's chemical-factories had developed into the large Fabrique des Produits Chimiques du Nord, and employed about 400 workmen in 1852. At that time German chemical-manufactories were small things, and it was not until the Franco-Prussian war that German chemical-industry was made possible by the depletion of

France. Kuhlmann was an Alsatian.

In 1875 Mr. Muspratt was elected President of the Liverpool Chamber of Commerce, and two years later entered the Liverpool Town Council. The chapter in which this is recorded tells much about education and water-supply, but little in regard to municipal affairs. It is strange to read now reflections of Englishmen who as recently as 1877 found that higher education was represented by Oxford, Cambridge, and Durham Universities. It seems almost incredible that forty years ago we had only begun to get away from ancient methods in education; but Mr. Muspratt puts it all graphically in his account of the effort to establish Liverpool University. The Charter granted to Victoria University was a compromise, and it included Leeds, Liverpool, and Manchester, taking a line of work that resembled the customs of the Scotch Universities rather than the old English style. After an interesting account of the Liverpool water-supply Mr. Muspratt closes the chapter with the following remarks in regard to the foundation of the Society of Chemical Industry and the creation of the United Alkali Co., Ltd.:

"Early in the spring of 1881 a few alkali-manufacturers of Widnes and St. Helens, with Dr. Ludwig Mond, met Dr. Campbell Brown in the rooms of the Royal Infirmary School of Medicine to discuss what steps could be taken to bring into closer touch professional scientific chemists with manufacturers and technical chemists. It was suggested that the best means would be the formation of a Society consisting of purely scientific chemists and those engaged in the application of the science.

then approached Professor Henry Roscoe.

We then approached Professor Henry Roscoe, head of the laboratory at Owens College, Manchester. He at once entered very cordially into the scheme, and in a short time about three hundred members joined the Society, which took the name of 'The Society of Chemical Industry.' The first general meeting was held in London, three months after the inauguration of the Society, on June 28 and 29, 1831, with Professor Roscoe in the chair, who delivered an

admirable address. The Secretary, Mr. George E. Davis, read a report showing that out of the three hundred membors there were twenty-three alkali-manufacturers, fifteen bors there were twenty-three alkali-manufacturers, infteen chemical engineers, twenty-three professors and demonstrators, forty-nine analytical chemists and assayers, and other chemists connected with various industries. In addition, several Continental chemists joined the Society: Professor Hofmann, of Berlin, Professor Lunge, of Zurich, and others. Professor Roscoe pointed out that among the objects of the Society ware the promotion of the analysis ties.

the Society were the promotion of the application of chemi-cal science to industries, and of the interchange of ideas between professional and industrial chemists, thus enabling them to meet the inevitable increase of foreign competition. Annual meetings were to be held in various towns, and local Sections were to be formed, with monthly meetings during the winter. The publication of a journal was also contemplated, giving not only reports of our meetings, but containing information concerning new processes and patents.

The Society now made rapid progress, numerous local Sections were formed and extended to the Colonies of Australia and Canada, and in the United States a strong Section was formed in New York. The members of the Society also increased rapidly, and soon numbered over four

thousand.

At the first meeting, after the President's address, I read a paper on noxious gases legislation, which was followed by a discussion, and the amended Act which was then passed a discussion, and the amended Act which was then passed through Parliament was based on the principles laid down in the paper. About ten years later, in 1890, the United Alkali Co., Ltd., was formed for the purchase of, and consolidating into one undertaking, various chemical and copper works in the United Kingdom, in which bleaching-powder and other chlorine products, soda ash, caustic soda, sulphate of soda, crystals of soda, sulphuric acfd, sulphur, etc., were manufactured by the so-called Le Blanc process, and two works in which alkali was manufactured by the and two works in which alkali was manufactured by the ammonia-soda process. By this amalgamation several small works were closed, and the others were placed under competent scientific management, resulting in more economical production.

A contral laboratory was built fully equipped for chemical research, and a large number of trained chemists were engaged at adequate salaries with a view to improving the processes of manufacture, and, where thought advisable, of investigating and adopting new inventions."

It is desirable to recall that in 1885-86 Mr. Muspratt was President of the Society, and is now the oldest surviving chemist who has filled that office, the next to him being Sir James Dewar, F.R.S. In "My Life and no further reference is made to these matters, nor to the Society's work, than what we have quoted, but it should be recalled that the Society of Chemical Industry holds Mr. Muspratt's services to it in high esteem, and no original member is more deserving of

honour than he.

Following the quotation that we have printed there come in the book personal details regarding Mr. Muspratt's political efforts and an interesting account of a visit which he paid to the British Association meeting in Montreal along with Dr. George Harley and others. The visit extended to the United States, and we may note here that Mr. Muspratt's travels are the predominating feature of his book. We have made little reference to this, although it happens to be absorbing, for he describes scenery well, the people whom he met were interesting, the times spent were redolent of historic interest or some personal character, and he has met a multitude of people. Think of conversations with Garibaldi, Sheridan Knowles, Gladstone, Dickens, and Henry Irving! And these are not a tithe of the great or interesting people with whom Mr. Muspratt has been familiar. A book such as this is difficult to end, and the difficulty must have been exceptional in this case, for Mr. Muspratt's eyesight failed him shortly after he commenced to write it in his eightieth year, when an amanuensis (Miss Isabelle Medlicott) began to help him. Happily the book ends on a high note, Chapter XXI. being devoted to secondary education in Liverpool and the development of University College there into Liverpool University. With that Mr. Muspratt had much to do-in fact, he was the leader-and the chapter embodies details of the growth of the University as a teachingcentre; while the following address, presented to him on his eightieth birthday (November 6, 1913), expresses most admirably appreciation of his accomplishments, and

with this we close our observations on a charming though modest autobiography:

"To Edmund Knowles Muspratt, LL.D., first President of the Council of the University of Liverpool, and a Pro-Chancellor of the University. One of the Founders and Councillors of University Col-lege, Liverpool.

On the celebration of your eightieth birthday we send

you our congratulations and warm wishes.

We represent more than one generation of teachers. We and those who will succeed us must always hold your name in regard and honour as that of one of the true makers of our University.

Your training in science, received under eminent auspices, at Munich and Giessen, has inspired you with a conception, rare in England, of learning in general, and of its ideals and methods. This conception you have ever been ready to realise when helping to mould a modern University; and your sympathy with humane studies of all kinds have always been signal and effectively. has always been signal and effectual.

Not only as a generous founder, and as an inspirer of other benefactors, but by advice, by speech, and by vote, you have steadily aided us in performing one of the most urgent of our duties-the choice of the right men, animated

by the highest standard of scholarship, to be our colleagues. Your skill, tenacity, and courage in opposing, with or without hope, all narrow and destructive policy, by whomsoever urged, has given us heart on countless occasions. You have ever stood for the better self of this University,

so often obscured by short-sighted fears and by obsolete notions.

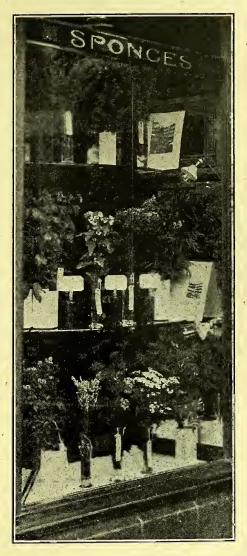
No one here, therefore, has promoted the cause of learning and academic statesmanship longer, more wisely, or with a more single mind.

We send you these lines that you and your family may know how we appreciate such service as yours, and the place that you hold in our affections."

Popularising Herb-growing.

W E referred in the Summer Number of The CHEMIST W AND DRUGGIST, p. 807, to the interest taken by Mr. G. A. Turner, F.C.S., of Anderson & Virgo's, Worcester, in the cultivation of medicinal plants. The photograph which we reproduced at that time showed a group of plants that Mr. Turner had grown. The engraving given here is from a photograph of a window-display, the purpose of which was to popularise this neglected branch of horticulture. In the United Kingdom and British Dominions nearly, if not quite, all vegetable substances known to be of medicinal value could be produced, and, at the present time, it must be patent to all that we ought to produce them and thus reduce to a minimum our dependence on supplies from foreign countries. It is satisfactory to see, writes Mr. Turner, that the Board of Agriculture has not lost sight of the importance of the matter, and is gratuitously furnishing information that will enable those who have the desire and means to embark in what should prove to be a very lucrative branch of husbandry. That alone is an excellent lead, but material and far-reaching results would also be attained by the co-operation of chemists, especially those in provincial towns, whose customers consist largely of landowners and agriculturists. Mere conversation with these gentlemen regarding the need of cultivating medicinal plants falls short of what is desired, but if they are shown a few specimens that you have grown, their interest in the cause is at once enlisted. In a small garden it is an easy matter to grow all that is required for the purpose, and the trivial cost and troable entailed are likely to be counterbalanced by the patronage of interested inquirers. It is intended that a window will periodically be entirely devoted to the display of medicinal herbs, and at the same time judicious distribution will be made of the Board of Agriculture's leaflet No. 288, which has been referred to several times in the C. & D. So far the exhibits arranged by Mr. Turner have induced two of his customers to take up medicinalherb growing, and many others have signified their intention of going into this branch of agriculture. That, to some extent, gives an idea as to what this simple scheme would mean if widely adopted by the chemists of

the United Kingdom and Overseas Dominions. The specimens shown in the photograph are Atropa Belladonna, Imperatoria Ostrothium, Althaa officinalis, Aconitum Napellus, Valeriana officinalis, Artemisia Absinthium,



Artemisia vulgaris, Achillæa Millefolia, Myrrhis odorata, Lavandula vera and Mentha Piperita. In some instances the drug as prepared for medicinal purposes is shown in conjunction with the botanical specimen.

The German Army Pharmacist.

Some information on German pharmacy in the army was given in the C. & D., October 30, 1915, p. 51. An article on the subject was contributed to a recent number of the "Vossische Zeitung" by Professor Dr. Rudolf Lennhoff, in which he states that one does not speak or see much in which he states that one does not speak or see much of the pharmacists. Among the many thousand troops of all classes one hardly notices the few men who, belonging to the class of upper officials, with the rank of officers, render an arduous and responsible service immediately behind the Front, mostly as chief pharmacists (oberapotheker) in the field hospitals and ambulance corps. As is also the case with medical officers, the majority of the pharmacists (apothekers) are men discharged from active service as soldiers after half a year under arms. They are prepared for their task in garrison hospitals. The purely pharmaceutical activity to which they are accustomed in civil pharmacies plays much less part in the field hospitals. There is less weighing-up, dissolving, filtering, mixing, etc.

As far as is possible, the drugs, etc., are supplied ready for use, in order to save time, and there is little left for the dispenser to do. The drugs and preparations kept regularly in stock number about two hundred. The conditions of a war of movement, particularly in the East, have, however, compelled most military doctors to carry with them more than the prescribed amount of drugs; but the limit is in any case drawn rather narrowly, and after big actions replemishment is speedily necessary. All medical formations further to the rear are bound to furnish this from their stocks, and must replenish themselves from stocks still nearer the base. In practice this has quite different results in the East and in the West. When the troops remain long in a fixed position the stations can be established so near together as to work almost continuously; where this is not the case the responsibility for supplying where this is not the case the responsibility for supplying the troops rests, especially in the East, on the ambulance corps, if only because it is usually nearer to the troops in the field than the field hospital, which is generally some kilometres to the rear. The official, however, who in both the field hospital and the ambulance corps administers, issues, and replenishes the stocks is the oberapotheker. He needs no small administrative talent, in view of the quantity and variety of what he handles.

To begin with the medicaments. Tablets—even peppermint tea can be had in tablets—ointments, plasters, and the many kinds of bandaging-materials (of which a long list is given); then the instruments, as knives, scissors, forceps, injection-syringes. The requirement for the last-named has increased considerably since the general introduction of repeated inoculation. The materials required—lymph, the preventives against typhus and cholera, the serums against diphtheria, dysentery, and tetanus—all these the oberapotheker gets and issues. So, too, with the things required for the hygiene of the troops—chloride of lime, etc., for the latrines, carbolised soaps for washing walls against vermin, fly-destroyers, insect-powder, and medicated soaps. He, too, administers the stocks of antigas masks and delivers them to the troops, also the stocks list is given); then the instruments, as knives, scissors, medicated soaps. He, too, administers the stocks of anti-gas masks and delivers them to the troops, also the stocks of oxygen apparatus for the recovery of those poisoned by gas; and he has to see to the refilling of the oxygen cylinders. Through his hands pass all articles damaged and requiring repair. In the field hospitals he frequently assists the doctors in the examination of urine, lends a hand now and again in bandaging, and in urgent cases administers anesthetics. He acts as an analyst in examin-ing drinking-water at billets, and is often put to all sorts ing drinking-water at billets, and is often put to all sorts of tasks, sometimes of a very strange kind.

Quite recently a new duty has been assigned to our oberapothekers—that of supervising the collection of medicinal simples. The apotheker at the Front is supervised and supported by the staff-apothekers, of whom there is one with every corps-doctor and every base-doctor. The army corps and independent divisions are supported by the base medical depart which is under the base-doctor. the base medical depôt, which is under the base-doctor. In the base medical depôt there are usually one staff-apotheker and five oberapothekers. The depôt is either a single unit or divided into several departments. When it is a good distance from the Front there are also transmitting or advanced depôts. It is difficult to form a conception of the turnover of goods in these base medical depôts. Besides all the things already mentioned, the thousands of iron bedsteads for field hospitals, the mattresses and bedcovers, stocks of linen and clothes for patients go through these depôts the covertion instruments. these depôts—the operation instruments, microscopes, Röntgen apparatus, filters, and all the hundred things re-Röntgen apparatus, fitters, and all the nundred things required for nursing, disinfection, dentistry, and veterinary practice, as well as wines, spirits, ctc. Besides filling these administrative posts the oberapotheker is found in the base district war höspitals, whose work is practically the same as in garrisons. The enormous stores which pass through the base medical depôts are delivered to the base that the the home collecting depôts cane of which effect. to them by the home collecting depôts, one of which often serves several bases. The largest of these is probably the chief medical depôt at Berlin. The central administration over all is exercised by the medical department of the War Ministry, in which there are at present two chief staff-apothekers, one staff-apotheker, and two ober-In contradistinction from other classes of chief officials, and also from the veterinary and medical officers, the apotheker (or pharmacist) in the field rarely rises above the rank of oberapotheker, which is particularly grievous to the older men of the discharged-soldier class. Apart from the fact that the number of staff-apothekers is limited, promotion to this post involves passing an examination as food-analyst, though during the war many even of the staff-apothekers are employed in merely administrative posts. It is true that the work of the food-analysts is considerable, for very little that has not been carefully tested is sent into the field or home hospitals.

£200 an Ounce.

A War-time Story by Dr. A. J. Barnes, M.P.S.I., Dublin.

TEALTH Insurance had not been long in vogue. II was in my little shop, the pharmacy which I had purchased only a few months previously. The hour was late-near closing-time-and the streets of the small South Coast town were settling down to the quietness of night. I was busying myself with Tariff costs. In my night. I was busying myself with the schooldays I had always felt that fractions were very schooldays I had always felt that fractions were very schools. To-night I properly named in the arithmetic-books. To-night I considered they were more than vulgar, for I reflected that if I were in any other walk of life but pharmacy, I should probably have completed my day's work some

hours ago. Presently I was interrupted.

A nurse in uniform, whom I did not recollect seeing in the town before, -tripped up to the counter and handed me a photo. She seemed anxious and greatly agitated. "I want you," she said, as she pointed to the photo,

"not to give that gentleman any chemicals or drugs if he should come in to you for them. He is a rest-cure case, and I am charge of was him. sent down from London t o nurse him, and when I arrived I found his sitting - room littered with testtubes and paraphernalia o f that sort. He is suffering from the effects of over-work, and ordered was down here for a complete change.



"A nurse in uniform tripped up to the counter."

Dr. Silmer, who is attending him, has given strict instructions that he is to have absolute brain-rest as well as body-rest. I have called upon all the other chemists in the town, and each of them has promised to abide by my request. Already I have kept back two parcels which came from chemical-manufacturers.'

I glanced at the photo as I handed it back to the nurse,

and promised to bear the matter in mind.

It was about a week after, when one afternoon a tall, well-set-up man, wearing a tweed cap and a heavy over-coat, entered my shop. He was clean-shaven, and although his hair had already turned grey, I considered that he was still on the right side of forty. He appeared to be a highly cultured man, and his gold-rimmed spectacles enhanced an unusually intelligent-looking countenance. I was fascinated with his appearance, and altogether I put him down in my own mind as being an eminent K.C. He asked me if I could supply him with some acetate of zine. I replied that I had only recently taken over the shop, and I was therefore not certain whether there was any in stock, but I would look.

After a long search-for there was no index to the position of stock—I unearthed a 4-oz. gold-labelled stoppered bottle containing some of the salt. I found it behind another bottle on one of the shelves of the dispensing-screen. The stopper was stuck tight, but eventually I got it out, and weighed the contents, which I found to be exactly 110 grains.

"Yes, I have found some," I said, addressing my customer, "but only a very small quantity—just about a quarter of an ounce."
"That will do nicely" said my supposed lawyer. "I

That will do nicely," said my supposed lawyer. "I am so glad you have some. Will you kindly let me look at it? Yes, that is a very fine-looking sample indeed," he said. "I just want it for a small experiment which I am making."

I wrapped the salt in waxed paper, placed it in a

powder envelope, and handed it over.

"How much is it?" inquired my customer.
That was a poser! I had never sold the salt before, nor had I any recollection of even dispensing it. I had no idea of the value of the substance, but I made a shot. "One shilling, please," I said in my best business-like

The purchaser seemed to be surprised at the smallness of the amount, and gave me the impression that he would have paid twenty times the figure for the salt. He had already said that he was glad to get it, and I began to fear that I had made a bad mistake against myself in

the selling-price.

That night I looked up the cost in my two wholesale lists, which I found differing by one penny per lb. I found, too, that not only had I not made any error against myself, but I had also made a very good profit on my sale. I thought if I could only make the same rate of profit on every sale I should soon be able to retire with a fortune! Suddenly, the nurse's request of a week ago flashed across my mind. I at once recollected the photo which she showed me-it was that of my acetate-of-zinc customer. I had done exactly what I was asked not to do, and I now remembered, to my horror, her associating Dr. Silmer's name with her re-

Dr. Silmer was the mainstay of my place. He had given his undivided support to my predecessor, and was continuing it to me. Whatever would he say? Would he sever his connection with me for so stupidly forgetting his instructions? I did not sleep much that night, through worrying over the matter, and I kept debating whether I should call upon the doctor to make a clean breast of my oversight and offer him my apologies. In the end I could not sum up courage to do so, and I left

the matter as it stood.

On the next day Dr. Silmer came in and handed me a prescription for a customer who had an account with me. "By the way," he said, "did you sell some acetate of zinc yesterday to a gentleman?"

When I heard this question I felt sinking. I feared a rupture between us was coming, and that the prescription I held in my hand would be the last he would give

"Yes," I replied in what must have appeared to him a decidedly guilty tone. I was just about to enlarge upon my answer and tender him my apologies when he inter-

rupted me.
"I saw your empty package. I am attending the gentleman. I suppose the nurse forgot to give you my instructions. I want you not to give him any of these things if he should come in again. Make some excuse for not supplying him. I suppose you would know him again. He is a rest-cure case, and I want him to have absolute quiet. He is a professor of chemistry, and it is difficult to keep him from engaging in problems connected with his work. You may of course give him other things—toilet articles and so on—but don't give him drugs or chemicals. He is not getting any medicines, which is unfortunate for you-merely special diet and

Feeling intensely relieved at the turn which the matter took, I promised the doctor I would faithfully carry out his instructions, and needless to say I did not remind him that I had already heard them. The narrow squeak which I had just had of losing the doctor's support would make me more careful in the future. The professor, however, never called in again, and I heard a month or so afterwards that he had just left the town.

The war was a little over six months old. I was in a very pessimistic frame of mind. My stocks of bromides and coal-tar derivatives, bought in at low prices, were exhausted, and I was now purchasing at the greatly increased figures. I was weary of the printed slips

attached to every list and invoice which reached me, intimating that "owing to the increased cost of raw material we are reluctantly compelled to add 10 per cent, to our existing prices." My expenses had gone up, and I knew my profits were going down. I was beginning to get behind with my accounts, and a couple of firms, although not actually pressing me, had already sent me reminders. Altogether the outlook was not good.

One day, just about this time, the postman handed me a registered letter. The postmark was London. My

heart sank as I sighted the missive, for somehow I felt, though I knew would be most unusual, that one of the firms from I had which receiving been reminders was now sending notice of proceedings against me, and was making



"I found a fifty-pound banknote."

that I should receive it. At length I opened the letter, and out of it I pulled a handwritten memo. to which was pinned a fifty-pound banknote and a four-shilling postal order! I stood dazed. Could it be a mistake? It certainly could scarcely be an order for goods. I looked at the envelope again to make sure that the communication was intended for me; my name and address were there all right. I hastened to read the memo. It bore neither name nor address, and it ran as follows:

"The writer is the individual who called upon you one afternoon about two years ago for some acetate of zinc. I was greatly struck with your courtesy, and the trouble which you took in finding the substance for me. I wanted it badly, and I had already tried all the other chemists in the town, each of whom said at once he had

You will recollect my mentioning to you that I wanted the chemical for an experiment. It may interest you to know that this was the basis of an important discovery which will be the means of saving the lives of thousands of our brave defenders on land and sea.

I handed over my invention to the Government, and they have only now given me a large sum of money in

In view of the Defence of the Realm Act I cannot, of course, tell you how the acetate of zinc entered into my invention, but I would say that if you had not supplied me with the substance I should never have made the discovery. The fit was on me for this work, and I had plenty of time on hand. If I had left it over I should never have taken it we again. never have taken it up again. Hence it is that I ask you to accept the enclosed 501.

I was undergoing a rest-cure at the time, and I was absolutely forbidden by my medical attendant to do work of any kind. In this connection I might mention that I was successful in preventing the nurse from reporting

you to Dr. Silmer for supplying me with my purchase.

The nurse is now my wife; she has forgiven you for disobeying the doctor's instructions which she conveyed to you, and she joins me in wishing you every prosperity.

P.S.—Please acknowledge safe receipt of the banknote by advt. in second column, front page, of next Saturday's 'Daily Telegraph.' I enclose a separate P.O. for this purpose."

My first impulse was to write a letter to the professor to thank him for his gift, and accordingly I called upon Dr. Silmer to find out his name and address. The doctor congratulated me upon my piece of good fortune, but would not give me the slightest hint of the identity of his patient. I had therefore to content myself with the announcement in the "Daily Telegraph" as requested.

With part of the money I settled two overdue accounts, and the remainder formed a substantial instalment for a new window-enclosure. The new window has more than doubled my turnover, and, although, like most other chemists, I am not making the same ratio of profit as in the piping days of peace, still I am doing very well.

The Beginnings of the Early-closing Movement.

The Early-closing of Retail Shops commenced in London, and has been carried on.

THE practically unlimited powers conferred upon the Government by the Defence of the Realm Act, and the desire of all classes to aid as much as possible in attaining the objects of the war, have resulted in the proclamation of numerous regulations which in peacetimes would have been held to be revolutionary, and

WE, the undersigned Chemists and Druggists, beg respectfully to direct the attention of the Inhabitants of Greenwich, Deption Deption and Blackheath, to the efforts now being made for curtailing the hours of business, and to inform them that in accordance with the regulations of the Society formed for that purpose, we have resolved, on and after the 25th instant, to CLOSE OUR SHOPS at Nine for Half-past, and on Saturdays at Ten for Eleven o'clock; but as sudden illness cannot be provided for, we shall hold ourselves in readiness, as heretofore, to supply such Medicines as are indispensably necessary. We beg further to observe, that whilst we are desirous of affording every accommodation to the Public for procuring Medicines on Sundays, we sincerely hope that the application for other articles of general use will in future be avoided.

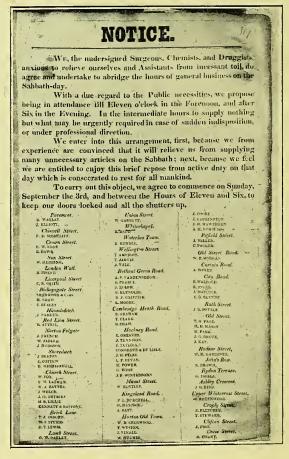
(Signed) GREENWICH. DEPTFORD. F. J. Athins. W. Baxler. Thomas Roiches. Jacob Elhington. Richard Helland. B. B. Orridge. Frederic Mendham. James Heech. 8. H. Baker. Henry Lloyd. W. D. Hope. BLACKHEATH. E. A. Oxborough. W. E. Place. W. James. J. B. Capper. William Harriman. S. L. Hiscox. George Downing. BLACKHEATH HILL & ROAD Thomas B. Clark. John Richards. Committee Room, Greenwich. Aaron Medwin March 14, 1844.

EARLY-CLOSING HANDBILL ISSUED IN 1844.

would have been very much resented. Among the regulations may be mentioned the Early-closing Order, which came into force last October and attained in a few days objects which shopkeepers have been striving to obtain for several generations. The subject was attacked from a fresh aspect altogether—the reduction of lighting and consequent economy of coal—whereas formerly it was the health and welfare of the assistant that it was desired to promote. The new standpoint could only have been taken in war-time, as in the ordinary course of events the lighting companies would have been the first to protest against any suggestions for promoting economy in illuminants. Whether the present restrictions on shop-hours are to be a permanent feature cannot be stated at present, but there are suggestions that many of the changes in the law brought about for emergency purposes should be continued.

The recent removal of the Early Closing Association to new offices at 34 to 40 Ludgate Hill, London, E.C.,

reminded us of some of the earlier struggles to regulate shop-hours and promote half-holidays. The Association was founded in 1842, and the long hours of business in the drug-trade came under consideration soon afterwards, various attempts being made to promote the earlier closing of pharmacies. Mr. A. Larking, the Secretary of the Early Closing Association, has given us access to a guard-book wherein are pasted announcements regarding meetings held in various parts to consider the question of early closing. One of the earliest of the window-bills conveying the resolution to curtail business-hours was issued by the chemists of Greenwich, Deptford, and Blackheath, and is reproduced. It is dated 1844, and it will be noticed that the new hours for closing are 9.30 p.m., and on Saturday "at ten for eleven o'clock," from which it can be seen that the business-hours up to then must have been excessive, and nowadays even the revised hours would be considered much too late. Sporadic efforts to promote early closing were made from time to time. The Pharmaceutical Society were approached in 1846 and asked to use their influence, but Mr. Jacob Bell, as he very frankly told the members at the annual meeting in 1847, opposed the discussion of the subject by the Society "because he had observed that it invariably occasioned unpleasant feelings



CURTAILING SUNDAY TRADING.

and tended to disturb the harmony which was so essential to the welfare of the members." This did not, however, end the matter, but if we may judge from the circular which we reproduce above, and which was issued in

1848, the thoughts of chemists were turned to limiting

the hours of opening on Sundays.

One of the largest upheavals, however, took place in 1854, at the time when Mr. John Lilwall was Honorary Secretary of the Early Closing Association. He seems to have conducted a special campaign among chemists' assistants, and succeeded in arousing so much enthusiasm that meetings were held at a quarter to five in the morning at the Freemasons Tavern, it being explained that this early hour was necessary owing to the late, hours usual in the drug-trade. It was stated officially at the time that dispensing-chemists' shops were kept open from 7 a.m. to 11 p.m. on seven days of the week. At the second of these early-morning meetings Mr. Lilwall outlined a complete plan of campaign, which was adopted. This included a circular to assistants asking them to favour the Secretary with examples of late hours—the issue of which was afterwards denounced as establishing a system of espionage—and a petition to the Pharmaceutical Society, a copy of which is preserved in the archives of the Early Closing Association. This is

extreme exertion, are not allowed the small indulgence of a walk in the fresh air unless obtained by special permission. . . .

Your memorialists beg to suggest that business should finally terminate at 9 P.M. Much that is at present transacted at a later hour is far from being solely on account of cases of necessity; the same purchases might be made at other times of the day without inconvenience to the public or injury to the tradesman. . . .

Your memorialists have not deemed it necessary to adduce any medical evidence in support of their opinions, knowing that gentlemen who themselves constitute a portion of the medical profession must possess such a knowledge of the human frame as to be fully aware of the very injurious effects resulting from such a combination of labour and close confinement as that to which they are subjected. The repeated inhalation of the same portions of air, the impurity of which hourly increases, checks the operations of nature, and causes only imperfect changes in the body where the preservation of health and strength requires them to be perfect. This is another of the numerous arguments which may be urged against the present injurious system; others of equal force will suggest



BOARD-ROOM AT THE NEW OFFICES OF THE EARLY CLOSING ASSOCIATION.

a long but well-written document, from which the following portions may be quoted:

"Your memorialists perceive in the long-hour system a fruitful source of many_evils, to one of which, as it materially affects the efficiency and respectability of the body, they would beg to direct the notice of the Council. The space of time daily demanded for business is excessive, and the attention of those subjected to this species of toil (tending as it does to their moral and mental degradation—to the extinction of the best feelings of the heart—and to the contraction of the energies of the mind) is early directed to embarking in trade on their own account as their only release from the thraldom to which they are compelled to submit. The thought of a speedy emancipation being once entertained, they rush on to the accomplishment of their desires and engage in business without the necessary experience, and with little else to recommend them to public notice than their ruinously low prices, thus injuring their more respectable neighbours and the trade in general.

Fifteen or sixteen hours in the day, together with Sundays, being required of assistants to be devoted to their employers' service, eight or nine hours only are left for the triple purpose of study, recreation, and rest. Your memorialists here beg to submit to your special attention the condition of those who, after these long hours of

themselves to the minds of all who consider the subject with impartiality."

The petition also dealt at length with the question of Sunday trading, and was signed at the end by about twenty of the leading chemists of the day. The firms supporting it included Allen, Hanburys & Barry, John Bell & Co., Butler & Co., Godfrey & Cooke, Savory & Moore, Waugh & Co., Mr. Bullock, Mr. Squire, and Mr. Tippett.

What took place at the Council-meeting at which the petition was discussed will never be known, as no reports of these meetings were published in those days, but the

following resolution was the result :

"That the Council have heard with pleasure of the arrangements made in many places to shorten the hours of business, and while they feel that the requirements of various localities are so different that no general rule can be laid down, they recommend to all principals to adopt them as far as practicable, so as to afford to their assistants and apprentices increased opportunities for mental improvement."

Thus a few years had brought about a notable change from the time when early closing was a subject that could not be discussed without the risk of disturbing the har-

mony of the members.

The subsequent history of the movement consists of efforts to promote legislation to effect half-holiday closing and earlier closing in the evenings, most of which were abortive until the Shops Act, 1912, made a weekly half-holiday compulsory and provided a method by which a recalcitrant minority could be compelled to adopt the closing-hours of the majority of those carrying on the same trade. The General of those carrying on the same trade. Closing Order under the Defence of the Realm Act made the eight o'clock closing-hour universal. An appre-eiation of the benefits of curtailing the hours of busi-ness was recently received by the Early Closing Associa-tion from a London chemist's assistant, from which we quote the following:

"I write to thank you for your efforts to close shops earlier; it is grand to leave at 8 P.M. after having to be open till 9, 9.30, etc. I am a chemist's assistant, and, speaking for our branch, I can say that we could easily close at 7 P.M., the amount of trade done afterwards being practically nil. Nobody thinks of bringing prescriptions after 6.30. . . . I hope you will soon be able to get shops to close at 7 P.M., and in any case it would be splendid if you could get it continued through the summer, so that shop-assistants may get into the open air before going to bed." to bed."

AN AUSTRALIAN VIEW.

An Australian pharmaeist, who is much impressed with the benefits that have resulted from the adoption of earlier closing in the Antipodes, sends us the following observations addressed to the "Pharmacists of the United

"The old superstition that a chemist is under some legal or moral bond to be at the beck and call of the public is founded only in the acquiescence of the victims. That this is so has been proved by bold experiment in the Commonwoolth and in the Dominion of New Zealand. In the six States of the Commonwealth the smallest of them, Tasmania, has gone farthest. It is enacted that the hours of business for pharmacists are to be from nine to six for five days of the week, nine to one for one day (selected

for five days of the week, nine to one for one day (solected by each locality), and one hour on Sunday.

That spelt ruin in the eyes of many of them. One of the most determined opponents of this measure confessed that, after a fortnight's trial, he was convinced against his will that he was not one penny worse off financially, but, on the other hand, saved money on lighting; his assistants worked with a crispness and vigour that pleased his customers and produced better sale returns. As for himself, he found the nine hours, with one out for lunch, left him with a decent evening for social enjoyment, and a fair share of life's activities outside his shop.

There was the bugbear for some time of the small shop-keeper who asked why, if he liked to keep open for twelve

There was the bugbear for some time of the small shop-keeper who asked why, if he liked to keep open for twelve hours for the convenience of the public, should he not do so. This plausible argument for a time was respected, and theso men were exempted. It did not work—the public was not grateful—no flocks of customers, too late at other places, went to the one-man shows: on the contrary, they were looked upon as blacklegs and lost trade.

Another old myth was exploded. 'The urgent necessity for medicine in case of sudden illness' sounds quite plausible, but under the cold fact of price-and-a-half or double price for all such urgent service rendered it vanished.

The writer has found in all casts the strength of the strength

The writer has found in all sorts of localities, as reliever in charge of businesses, that urgent night-calls do not average one a month. average one a month.

There remains the plea, If all shops are closed at the big central shops. The answer to this is, The man employed has no more time to shop there than in his own suburb; also that it is the womenfolk who do nine-tenths of the shopping, and a general curtailment of hours leaves things in the status quo ante as to distribution of trade, with a balance in favour of a near-locality shop as more convenient. It has been found so by sheer experience.

This touches the fringe of a larger question—of the innate conservatism of all womenkind; but when a lady has to get her toilet-requirements before six or wait until next

day-she never waits."

Vanillin has been found in the roots of oats and the leaves and roots of a number of plants.

A.Ph.A. Recipes.

It was decided in 1912 by the American Pharmaceutical Association that a Committee should be entrusted with the collection of non-official formulæ which it is intended to embody in a recipe-book to be published by the Association. The recipes are printed from time to time in the "Journal" of the Association with a view of provoking criticism. Many of the formulæ are familiar, some being taken from British sources. We have, however, made a selection of those recipes which appear to us of greatest interest to our readers. Those given here are mainly pharmaceutical preparations or formulæ specially called for by surgeons and

£5	
"A. B. C. POWDER."	
Boric acid,	Phen
Bismuth subnitrate,	Thyn
Calomel equal parts	Camp
	Ment
Aeid Diarrhea-mixture.	Ichth
Diluted sulphuric	Balsa
acid 1 c.c.	Starc
Comp. tinct. carda-	Zinc
moms 2 c.c.	White
Sugar 4 grams	Lion

Spearmint-water ... For diarrhea: 8 c.c. in a wineglass of water after each movement of the howels. As a tonic: 4 c.c. three times a day.

ANTIPRUBITIC LOTION.

Meuthol	0.6	gram
Liquid phenol	2	c.c.
Bismuth subnitrate,		
Zinc oxide of each	15	grams
Cherry-laurel water	30	c.c.
Formalin antiseptic	60	cc.
Rose-water to make	180	c.c.

- 131	SCK S DI	SMUTH	LVST	Pi
Bismut	h subnit	rate	30	grams
White	wax		5	grams
Paraffir	i	·	5	grams
Yellow	paraffin	(soft)	60	grams
37-14 4	ha fata	3 41	4	11: 1

Melt the fats, and then sterilise hy hoiling. Allow the mixture to cool, triturate well with the hismuth subnitrate, and fill into jars.

BLACK DYE FOR SILKWORM-GUT SUTURE.

		ogwood	1 20	grams
Coppe	r sul	hate	8	grams
Distill	ed w	ater	1,000	c.c.
Boil	the	white	silkwor	m-gut in
sterile	wate	er for	thirty	minutes

After bringing the dye to the holling-point, add the gut and holl for five minutes. Preserve iu 95-per-cent. alcohol.

BISMUTH-SUBGALLATE DUSTING-POWDER.

Pismuth subgallate	20	grams	
Wheat starch	10	grams	
Tale	70	grams	
Astringent dusting-po		used for	c
mounds and alin discour	00		

BITTER WATER.

600	grams
500	grams
3	grams
45	grams
20	grams
	L
10	c.c.
8.000	c.c
	500 3 45 20

" BORACETANILE."

(Pulvis Ac	etanil	idi et	Acidi	Borici.)
Acetanilid Boric acid			25 75	grams grams

BRITISH OIL.

Crude petroleum 35 Barhadoes tar 105	c.c.
	c.c
Crude oil of amher,	
Oil of juniper of	
each 140	c.c.
Linseed oil 280	c.c.
Oil of turpentine to	
make 1,000	c.c.
Mix them.	

J	3 (K.N-0	TYLETT	NT.	
ol			1	gram
ol			1	gram
hor			1	gram
ol			1	gram
yol			2	grams
m of	Pern		2	grame

grams ch 20 oxide 20 ee petrolatum ... 152 grams grams uefy the first four ingredients by

trituration in a mortar, and then add the next two and mix thoroughly. Now incorporate the zinc oxide together with the petrolatum. Lastly add the starch in fine powder. This ointment is sometimes used one-half strength.

CATHETER LUBRICANTS.

I. Melzer's formula.

Tragacanth		3	grams
Distilled water		100	grams
Glyceriu		20	grams
Mercuric oxycyan	ide	0.2	46 gram

II. Strauss's termula.

Tragacanth	. 1.6	gram
Distilled water	50	grams
Mercuric oxycyanide	0.1	gram
Glycerin to make	100	grams

Triturate the powdered tragacanth with the distilled water, add the glycerin, and then sterilise. After sterilisation add the mercuric oxycyanide.

CHOLERA-MIXTURE.

	200	c.c.
Spirit of camphor,		
Tinct. of capsicum,		
Tinct. of rhubarb,		
of each	100	c.c.
Camphorated tinet.		
opium	500	c.c.

CINNAMOL TABLETS. (Wilhest's Tablete)

(11 000010 2 401	
Sodium bicarbonate	0.25 gram
Sodium horate	0.25 gram
Sodium chloride	0.25 gram
Sodium phenoisul-	
phouate	0.25 gram
Oil of cinnamon	0.005 gram
Make into one tablet.	

One tablet dissolved in six table spoonfuls of water. Useful as a gargle and nasal douche.

COMPOUND SOLUTION OF THORIUM.

(For cystoscopic use.)
Thorium nitrate 100 grams
Sodium citrate(solut.
50 per cent.) 300 c.c.
Sodium hydroxide (solut, 15 per cent.) a sufficient
(solut. 15 per ccnt.) a sufficient quantity
Distilled water to
make 1,000 c.c.

Make a hot saturated solution of Make a hot saturated solution of thorium nitrate, and gradually add the sodium-citrate solution in small portions, shaking very thoroughly after each addition. At first a white, gummy precipitate is formed, which becomes granular and finally dissolves when all of the sodium-citrate solution is added. Now neutralise with solution of sodium hydroxide, and finally add sufficient distilled water to make 1,000 c.c. 1,000 c.c.

COLLYRIUM ADSTRIN	GENS	LUTEUM
(Yellow Astringent	Eye-	wash.)
Ammonium chloride	2	grams

Zinc sulpbate grams ... 890 Water grams Camphor grams Alcohol, 68 per cent. 100 grams Saffron gram

Add the solution of camphor in alcohol. Last, add the saffron, macerate for twenty-four hours, and then filter. Used in conjunctivitis.

DEODORISER FOR SICK-ROOM.

Coumarin	2	grams
Oil of lavender	2	C.C.
Oil of bitter almond	4	c.c.
Oil of clove	12	c.c.
Oil of eucalyptus	16	c.c. ,
Oil of patchouli	10	drops
**		F

Use as a spray. This will remove the disagreeable and sometimes un-hearable odour in sick-rooms.

ENGLISH TONIC.

Tinct.	phosphor	us,		
N.F			20	c.c.
	calumba		50	c.c.
	gentian	•••	50	c.c.
Tinct.	matricaria	• • • •	90	c.c.
	nux vomica	a	90	c.c.
	ignatia		90	c.c.
Tinct.	aromatic		180	c.c.
Tinct.	cinchona		360	c.c.

FORMALIN ANTISEPTIC. (Borolyntus.)

Cinnamic acid	3	grams
Benzoic acid	10	grams
Boric acid	55	grams
Thymol	10	grams
Menthol		grams
Oil of pinus pumilio		c.c.
Oil of eucalyptus		c.c.
Tincture of myrrh	. 8	c.c.
Solution of formalde-	• . ~	
hyde	38	c.c.
Acetic ether		c.c.
Glycerin	240	c.c.
Alcohol	625	c.c.
Water to make	20,000	c.c.

14 Castor oil c.c. At one dose. FULLER'S INHALANT.

drop

FORTIFIED CASTOR OIL.

Croton oil

	-	CHIMA	~ ~~	TADLET T .	
Men				2.5	grams
Guai	acol			4.0	grams
Cam	phor	ated	tinc-		_
tu.	re of	opiun	1	125.0	c.c.
Com	pour	d tin	cture		
of	$_{ m henz}$	oin to	make	250-00	c.c.

A modification of this consists of terehene 4 c.c., Fuller's inhalant a sufficient quantity to make 250 c.c.

GELATIN BONE-PLUG.

Gelatin			30	grams
Water	•••		30	c.c.
Glycerin			40	c.c.
Just befor	e using	g add	2 per	cent. of
solution of	forma	aldeh	yde.	This is
the formul	a of	a	world	l-famous
surgeon.				

HARRINGTON'S SOLUTION.

Mercuric			0.8	gram
Hydrochloric acid			60.0	
Water			300.0	
Alcohol		•••	640.0	c.c.

This solution is recommended for hand-disinfection, and it is also used for preparing the skin before incisions. On account of its sublimate-content, it should he preceded by ether and followed by a little plain water.

HORSLEY'S WAX.

Yellow wax Expressed oil of a	7 l-	grams
mond	1	c.c. gram
Mix at a very gent brain operations.	le heat.	Used in

INHALATION-FLUID.

Oil of eucalyptus	2	e.c.
Oil of pine needles	2	c.c.
Oil of gaultheria	2	e.c
Compound tincture		
of hanzoin tomaka	30	0.0

JACOBI'S GARGLE. (Golden Gargle.)

Tincture		ferric		
chloride			12	- c.c.
Glycerin			24	c.c.
Potassium	c)	lorate		

sat. solut. to make 100 c.c Owing to the alcohol-content of the Dissolve the salts in the water and tincture, some of the potassium dithe solution of camphor in alcohol. chlorate crystallises out. For this reason, the equivalent (about 4 grams) of sodium chlorate can be used, which, on account of its greater solubility, remains in solution.

KIRTH'S MIYTHER

Tributio Milke	OHLE.	
Heavy magnesium		
oxide	8	grams
Magnesium sulphate	24	gram
Glycerin	30	c.c.
Mucilage of acacia	30	cc.
Peppermint-water a		
sufficient quantity		

... 180 c.c. This is a famous Scotch preparation, and is used as a stomachic. Dose: 4 to 8 c.c. as necessary.

LOEFFLER'S SOLUTION. (Pigmentum Mentholis et Toluol.)

Mentinol and Tolu	ioi Pai	int.
Menthol	10	grams
Alcohol	60	c.c.
Solution of ferric		
chloride	4	c.c.
Toluol to make	100	c.c.

Used as an antiseptic application to the false membrane of diphtheria.

LOOMIS'S QUININE.

Quinine sulp	phate	60	grams
		60	grams
		1,000	grams
Bitter-orang			grams
		9,000	c.c.
Water ,		2,000	c.c.

Percolate the ground drugs with the menstruum, and therein dissolve the chemicals.

LUBRICATING-JELLY.

1.		
Tragacanth, whole	3	grams
Glycerin	25	c.c.
Phenol	1.5	gram
Distilled water to		0
make	300	c.c.

The tragacanth is broken into small pieces, put into a wide-mouth hottle, the other ingredients are added, and the bottle frequently shaken.

II. Formalin minims Formalin ... Boric acid ... 16 oz. 12 oz. ... Irish moss ... Distilled water to

make 5 gals. Wash the cut Irish moss, put it, together with the horic acid, in about 4 gals, of distilled water on a waterbath, and hoil for ahout three hours. When cool decant from the sediment, add the formalin and sufficient distilled water.

II	I.		
Fragacanth		* 3	grams
Alcohol		8	c.c.
Distilled water		120.	c.c.
Phenol, liquefied		4	c.c.
Ilmoorin to make		200	COMO TOCA

Agitate the powdered tragacanth in a bottle with the alcohol, add the distilled water, and set aside over-night. Then add the phenol and sufficient glycerin to make 200 grams (ahout 180 c.c.). If necessary, steril-ise and place in collapsible tubes.

MANDL'S SOLUTION.

(Pigmentum Iodi Compositum.)

lodine	1.25 gram
Potassium iodide	5-50 gram
Oil of peppermint	0.75 c.c.
Glycerin to make	100 c.c.

Used as an autiseptic and stimulant application for the throat.

MORHAM'S PLUG.

Sesame oil	Ι,,			
Paraffin	of	each	40	grams
lodoform			20	grams

MISTURA NERVINA. (Hammond's Mixture; Vance's Mixture.)

Strychnine sulphate 0.06 gram Quinine sulphate, Ferric phosphate, of each

8.00 gram Diluted phosphoric 120 acid Syrup of ginger to make ...

MORTON'S FLUID.

... 240

(Injectio iodi.)
0.6 gram Todine Iodine ... Potassium iodide ... 2.0 gram Glycerin to make ... 30 c.c.

Used as an injection in tumours. from 2 to 4 c.c., according to size of tumour.

MOTT'S ANODYNE LINIMENT.

Chloroform, Tincture of aconite, Tincture of iodine, Ammonia-water of each

15 c.c. Soap liniment to make 120 c.c.

NASCENT FERROUS CARBONATE. Ferrous sulphate ... 3.2 grams Distilled water Potassium carbonate
Glycerin to make ... 100 1.6 gram 00 c.c.

Dissolve the ferrous sulphate in the Dissolve the terrous supprate in the distilled water hy means of heat, add a portion of glycerin; then dissolve the potassium carhonate in the remaining portion of glycerin, allow to cool, and mix. Should be liberally diluted when taken.

NASCENT SILVER 10DIDE.

Silver nitrate	2.2	grams
Potassium iodide	2.2	grams
Distilled water	50	c.c.
Irish moss mucilage		
to make	100	0 0

For a heavy coarse precipitate the potassium iodide and the silver nitrate are dissolved iseparately, each in 5 c.c. of distilled water. The two solutions are subsequently mixed, and the mixture after being thoroughly shaken is diluted with the requisite amount of distilled water and mucil-

NUTRITIVE TONIC. (Neoferrin.)

Solution of arsenous acid ... Extract of malt ... Solution of iron pepacid 40 c.c.

tonate with man-

ganese to make ... 100 c.c.

Mix the arsenical solution with ahout 40 c.c. of the other solution, add the extract and sufficient of the iron solution to make the product measure 100 c.c., and mix them thoroughly.

OINTMENT-BASE.

White wax		20	grams
Liquid petrolatu	m	70	grams
Rose-water		30	c.c.
Sodium borate	`	1	gram

PINE-OIL DISINFECTANT.

Pine oil			1,000	grams
Rosin			400	grams
Sodium	hydrox	ide,		

25% solution ... 200 grams The pine oil and rosin are heated together in a covered enamelled vessel until the rosin is all dissolved. The mixture is cooled to 80° C., the sodiumhydroxide solution added, and the liquid violently stirred or heaten for liquid violently stirred or heaten for at least ten minutes with a rotary egg-beater. Sufficient water is added to make mixture to the original weight. The preparation is then cooled quickly by placing the vessel in cold water. It is stored in glass or metal containers till used.

RED MERCURIC-IODIDE SOLUTION. Red mercuric iodide 1 Sodium iodide gram Distilled water to 10 c.c. make

injections.

SEMMOLA'S FLUID.

Sodium iodide	8	grains
Sodium phosphate	16	grams
Sodium chloride	32	grams
	1,000	e.c.
Given in doses -of		
operations to improve	elimi	nation.

SQUIBB'S SURGICAL POWDER,

(Compound Alum Powder.)

Phenol			1 :	gram
Camphor			3	grams
Exsiccated	alum	9	16	grams
Triturate	to a fir	ie pow	der.	Keep
in well-close	l vessel	s. Int	trodu	ccd by
Dr. E. R. Sc				
as an antisep				
powder for				
wounds, cau				
also a good s				
powder diss				
used as an as	tringen	t wash	and	gargie.

THIERSCH'S POWDER.

(Boro-salic	ylated 1	Powd	er.)
Salicylic acid		1	part
Boric acid		8	parts
Mix intimate	ly.		

THIERSCH'S SOLUTION.

(Doro-sarregi	aiea soi ai w	n.)
Salicylic acid	2	grams
Boric acid	12	grams
Water to make	1,000	c.c.
Dissolve.		

TOOTHACHE-DROPS.

(Tinctura Antiodontalgicar)

Phenol		***	2	p	arts
Menthol			2	p	arts
Eugenol		***	1	p	art
Liquefy	the	phenol,	add	the	men-

thol and eugenol, and dissolve. This produces an excellent tooth-ache-remedy, far superior to any other similar preparation.

TRIPLE WATER.

Camphor-water, Peppermint-water, Lime-water, ... equal volumes Mix them.

A general favourite for correction of nausea.

TUBERCULIN OINTMENT.

T."	ercuin, O	. 10	c.c.
Hydrous	wool-fat	. 10	grams
Mix the	m thorough	ily.	
For dia	gnostic use.		

THRNER'S EXPECTORANT.

Ammonium chloride	8	grams
Extract of glycyr- rhiza Camphorated tinc-	12	grains
ture of opium	16	c.c.
Syrup of squills	30	c.c.
Water to make	120	C.C.

UNG. BALSAMI PERUVIANI COMP. (Bed-sore Ointment.)

(1704 0010	0 11101	,,,,	
Balsam of Peru		10	grams
Zinc oxide		40	grams
Castor oil	•••	50	grams

UNG. CAMPHO-PHENO COMP.

Camphor, Phenol, of each ... 16 grams Zinc oxide, Petrolatum, of each 240

Triturate the camphor and phenol until liquefied, and gradually add the mixture of petrolatum and zinc oxide. A very efficacious remedy for hæmor-

ZENKER'S FLUID.

Potassium diebrom-

1 Occasionali dicini oni		
ate	50	grams
Mercuric chloride	100	grams
Sodium sulphate	2.0	grams
	000	c.c.
Water · 2	,000	C.C.

Add 5 c.c. of acetic acid to each 100 c.c. of ahove solution at the time of using, as the finished solution de-composes readily.

Used hy pathologists to fix and

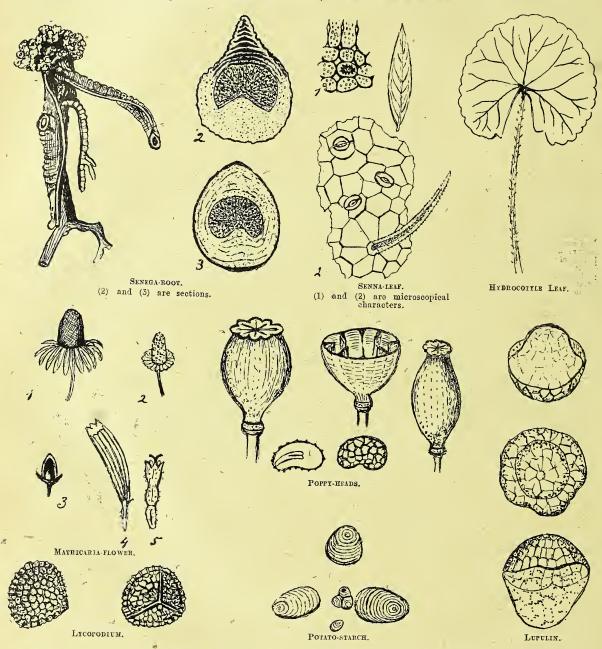
Intended chiefly for intramuscular harden tissue and to prevent breakdown of structure.

Pharmacopœia Materia Medica Monographs.

Suggested "Pen Portraits" of Drugs with Telegram-style Descriptions.

WHAT kind of descriptions of drugs should be in- macopæia, give some more or less elaborate descriptions attracting some attention in Holland. Professor Dr. J. W. Moll has published a long article in the "Pharmaceutisch Weekblad," in which some interesting points are mentioned. The French Pharmacopæia, he states, does not

serted in Pharmacopæias is a problem which is which mention the most characteristic properties of the drugs without being complete. These Pharmacopæias mention such features as a lecturer on pharmaceutical botany gives in class, or such as are asked from candidates in the examination-room.



give either microscopic or macroscopic descriptions of drugs; the Swiss Pharmacopæia gives some indications regarding the properties of the vegetable drugs that are mentioned, but these hardly deserve the name of descrip-The American, British, and German Pharmacopæias, and also the third edition of the Dutch Phar-

Professor Moll initiated another system, which has been followed in the fourth edition of the Dutch Pharmacopæia and also in the Dutch Homeopathic Pharmacopeia. In the cases mentioned the descriptions of the drugs have been made as complete as possible, and the same principle has been followed in the description of the

microscopy of powdered drugs. The principal properties are mentioned first, then the less important properties, and not a single property particular to the drug or the powder, however minute, is omitted. This manner of describing the official drugs has, however, been subjected to much criticism. Professor Dr. E. Verschaffelt, professor of pharmaceutical botany in the Amsterdam University, though fully appreciating the scientific value of the elaborate descriptions, was of opinion that many practical pharmacists would object to the elaborateness, and this has really happened. The method that has been followed has not been systematically met by good arguments. With regard to the revision of the Pharmacopæia, Dutch pharmacists have been asked what changes they desire to be carried out in the fifth edition, and, without any hesitation, several of them ask for shorter descriptions of the drugs. This has induced Professor Moll to defend his standpoint against the objections which have been urged at different times against the method. The descriptions of the drugs in the Pharmacopæia must be such, he contends, that they enable pharmacists to identify the drug and judge of its purity. In general this will be easy enough so far as chemicals are concerned, but for drugs it is much more difficult. It is quite impossible for pharmacists to know by heart the properties of the drugs from the most important to the minutest particularities, and it is exactly the complexity of these properties which enables him to judge the quality of the drugs he is examining. Where his memory fails, the Pharmacopæia should help him, and the Pharmacopæia must in consequence be a trustworthy guide for helping him to detect adulteration or impurity in the drug con-

In the descriptions of the Pharmacopæia special adulterations which are often met with can be mentioned, of course, but the pharmacist must also be able to detect adulterations which occur for the first time, and this he can only do when he knows all about the characters of the drug itself. It is therefore from a practical necessity, and not only from a scientific point of view, that the descriptions of the Pharmacopæia should be as exact as possible. That is why Professor Moll has tried to give "pen-portrait" descriptions of the drugs. He first divides the drugs into parts the form of which is simple enough to be described exactly; a systematic and successive order is followed, so that completeness is arrived at and nothing omitted. A sort of "telegram-style" is used; further, the terminology of Linnæus is made use of. The method of Linnæus is an instructive method, while the method of giving minute descriptions leads to examination and to discoveries. It is a difficult task to make those descriptive portraits, but when it is finished it often leads to scientific results, and it gives the author the satisfaction that the best possible description has been furnished.

In order to show how Professor Moll wants the descriptions of drugs in the Pharmacopœia to be given a translation of the capsicum monograph in the Dutch Pharmacopœia is appended. This article has been written by Professor Moll himself, just as have nearly all the other descriptions of drugs in the Dutch Pharmacopœia:

Fructus Capsici.

CAPSICUM.

The ripe fruits of different varietics of Capsicum annuum, Linn., Sp. Pl. 188.

Berries with very slightly developed fruit-pulp, the upper portion of which is for the greater part filled with air; the peduncle is short or long; it has a remaining calyx which may have a form varying between a star and a tube, and has from five to six slightly developed teeth that have a greyish-green colour the same as the peduncle. The fruit itself is from five to twelve centimetres in length; at its lower part it is two to four centimetres in diameter; it can have the form of a straight or of a wavy cone, and can further have various forms, short and broad or longer and smaller. It is composed of two, and not rarely of three, fruit-leaves; in the lower part there are two or three cells

with complete partitions and broad, axillar, orange dissepiments; at about a quarter of the height of the fruit the dissepiments begin to deviate from each other, and soon they are only small dissepiments in the form of a ridge along the pericarp. These dissepiments are found up to the upper part of the fruit, and are covered with seeds for the greater part of their surface; the upper part of the fruit, therefore, consists only of one cell. The pericarp has a thickness of about 0.35 millimetre; it is dry, glabrous, leathery, elastic, coarsely and slightly shrivelled, and shows a large number of veins when held against the light. The veins do not quite branch themselves. The outer surface of the pericarp is glabrous, brownish-red, red, or orange, very rarely yellow, with two or three longitudinal, slightly impressed, slightly darker coloured lines which correspond with the dissepiments. The top of the fruit shows a small round impression of the style. The inner surface of the pericarp is finely and longitudinally striated. The seeds are very numerous, partly loose, and partly attached to the dissepiments and have a short fleecy placenta; they have a diameter of about four millimetres, are flat and almost quite round; the placenta is attached to a small prolonged part of the seed; the surface is very striated, and yellow.

THE POWDER.

For the preparation of the powder the peduncle, calyces, and seeds must be removed as much as possible.

and seeds must be removed as much as possible.

Microscopy of the Powder.—It consists of rather big particles, the orange-red colour of which is due to carotin, which can for the greater part be found in oily drops; the walls of the cells are colourless or yellow, never brown. In chloral hydrate the carotin is soluble, but the drops of oil remain very numerous, and still show the colour after the treatment with chloral hydrate. The parenchyma has collenchymatic walls; on these fragments the outer epidermis, which is very translucent, is often clearly visible, though with some difficulty; the epidermis cells are elongated, and have quite colourless thick walls which show stomata. The very distinct lines of the cuticle run irregularly along the outer surface and anastomose now and then. The cells of the inner surface of the pericarp, with yellowish thick walls, are placed separately or in larger or smaller groups; they are elongated, with more or less wavy walls that show a great many stomata. The irregular, round, or slightly elongated parenchyma cells of the receptacle are placed separately or in groups; the walls are slightly thickened, yellowish, with distinct reticulate designs; there are large intercellular spaces and distinct round or oblong communication-ridges that have small ovoid stomata. The parenchymatous tissue has large cells with very thin walls, often indistinct, also small groups of spiral vessels. Amid a, small quantity of starch are found small round grains of starch or small groups of parenchyma cells which contain a larger number of such grains. Some particles of seeds are generally found even in very carefully prepared powder. In powder that has been made without the seeds having been removed beforehand these particles are, of course, to be found in larger quantity. These seed-particles chieffy consist of (1) epidermis-cells of the seeds, with wavy side-walls: these and the inner walls are clearly yellow, very thick, and with distinct layers, sometimes with small internal wrinkles; (2) endo

Parts of peduncle and calyx—epidermis with stomata and small hairs, fibres with thick walls, etc.—are found in small quantities in powders which contain these organs. When treated with sulphuric acid, the carotin in the dry powder gives a distinct blue colour. The odour is faint characteristic; taste, especially of the dissepiments, is intensely pungent.

Most of the criticisms upon this method of giving descriptive portraits of the drugs aim at substituting the elaborate descriptions by illustrations in the Pharmacopæia. The description could then be reduced to as short an account as was given in the third edition of the Dutch Pharmacopæia and in most of the modern foreign Pharmacopæias. Mr. J. Jelgerhuis Swildens, an Amsterdam pharmacist, defended this method against Professor Moll's standpoint in a subsequent article in the "Pharmaceutisch Weekblad," and gave examples of the way in which he would like the drugs to be described. The verbal outline is similar to that given in the British Pharmacopæia, but he wants the description to be illustrated by sketches such as are shown on the previous page.

Window-dressing.

An Aftermath.*

By Sydney F. Body.

IT is questionable whether pharmacists ever realise the almost sinister significance of window-dressing, how momentous was the decision of window-dressing pioneers, and how attractive and destructive its results have proved. It might be justly said of the renegade pharmacist who



MR. SYDNEY F. BODY.

first dared to put a price-ticket upon a saleable windowdisplay that he ruthlessly poised a dagger over the heart of pharmaceutical professionalism, and kindled the spirit of broadcast commercialism which now probably characterises 99 per cent. of the pharmacies of this country.

Window-displays set the seal of commercialism on pharmacy, alienated the medical profession from sympathetic intercourse with chemists, and lowered the status of the pharmacist in the eyes of the public to that of a superior tradesman who, for no very logical reason at first, considered it important, for the purpose of preserving the little remaining dignity he inherited from the past, to limit his merchandise to perfumery, toilet-articles, and sick-room requisites.

Mark how completely the professional traditions of pharmacy have faded into obscurity. With the ascent of store principles your modern pharmacist has assumed all the garish tricks of display for winning the public eye, and deflected, by subtlety and ingenious effects, the theme of retail pharmacy from a pride-of-craft harmonic into a discordantly ringing cash-register rag-time!

The spirit of window-dressing has positively hypnotised the twentieth-century pharmacist—it permeates nearly every commodity he touches, it is the inspiration of his day's work, the guiding influence in his public service. Look round your pharmacies, ye unblushing sons of pharmacy, and try to trace the faintest impulse of pride in product, apart from its exterior get-up and attractively phrased labels and showcards. Your very bottles condemn the vanities of your soul; the pleated caps and lurid cartons which imprison the forgotten contents manufactured and packed by the omnipotent wholesaler point an accusing finger which has long since lost its power to

shame and humiliate your guilty conscience. Slaves to Mammon pursuing with your every word, look, and heartbeat the golden stream of lucre which, alas! so rarely in the ebb and flow of the day's turnover lips its puny banks, and the course of which, despite your seductive method, oft runs so tardily as to break your despairing courage and drooping spirit.

and drooping spirit.

Have you heard from afar the voice of wisdom which recalls you to a sense of your higher purpose? Is it now so distant that you almost fail to catch the faintest whisper? The ear is out of tune to the softly modulated appeal; it responds only to the insistent and resonant beats of the big drum of publicity. Even your journals ooze with the slime of your commercial slough, and how eagerly you fasten on to the vapourings and cheap wisdom of the cute and suggestive trade article. The wiles of the business tipster make you gape and grope, the lure of the spectacular has gripped, and day by day you are served with devilled system and assimilate the jugged discourses of that chef of mendacity, the business expert.

business tipster make you gape and grope, the life of the spectacular has gripped, and day by day you are served with devilled system and assimilate the jugged discourses of that *chef* of mendacity, the business expert. Whither are you drifting? Is pharmacy dead? Examine once more the paths you once traversed in the pursuit of knowledge—did they lead you to this? A thousand times, NO. They led you to a parting of the ways, and you took the down grade, the line of least resistance. It was so easy to barter your science—your nobler and loftier instincts—your birthright—for a mess of pottage.

Wake up! The day of reckoning is at hand—the horizon is thick with the immensities of the future. Will you continue to grub and grind, hewing wood and drawing water, while others take up the threads of your frayed and frowsy fabric and weave it into a tapestry of higher art from which you shall for ever be excluded?

Beware, the avenues of escape are narrowing: choose to-day whither ye will go—toward the summit or into the valleys. Of course there will be a section who argue the material benefits of the new régime, and that in the main the commercialisation of pharmacy has relatively enriched those who have cultivated it. No one will dispute the existing financial incentive—indeed, having due regard to the difficulties and injustices which have surrounded the pharmacist for many years, more often than not the subordination of professional instinct to his bread-and-butter needs has been the cause of adherence to false principles, and not by any means the result of his own volition or preference. There is, however, no escape from the completely illogical fact that the scientific knowledge and professional experience of the pharmacist cannot at present be effectively translated into l. s. d. His education serves the social necessities, but its market value to-day is a matter for pathetically morbid humour.

With the dawn of an approaching National Medical Service the recognition of the higher service of pharmacy may come, but, in the view of many, this will largely depend upon the more effective organisation of pharmacists whereby, possessing sufficient faith in themelves and loyalty to their leaders, they may yet compel a more adequate remuneration for their skilled service and an active protection of their skilled service.

active protection of their rights.

There are men of good metal in our midst, potential leaders and guides to higher altitudes, if we will but place them in the seat of control—men of clear, undimmed vision and hopeful prescience, who, if supported by the unswerving allegiance of a reformed and organised army, will go far to redress the wrongs and fight through the walls of professional antagonism which have grown up around us and obscured too long the hill of nobler ideals and loftier aspirations. Some day there may arise a community of scientific pharmacists who shall wrench out the evil thing from our camp; the vile commodities handed out by us day by day with specious commendations and the oily patronage of insincerity—those patents of questionable origin—those articles with grossly exaggerated claims—those polluted sources of quackery steeped in infidelity and ignorance. Surely a susceptible public needs the protection of those better informed. We owe it as a duty to the public and ourselves not to be identified with forbidden things which have crept in through the back door of medicine and pharmacy, while we drowsed and yawned and weakly quoted our lame excuses.

^{*} It was reported in the C. & D., December 30, 1916, p. 56, that Mr. Body had made a speech on window-dressing, hence the sub-title. It is but fair to him to say that his shop-windows in Southend-on-Sea and Westcliff are always well dressed and sell the goods. On this occasion "the malign influence which window-dressing has exercised on professional pharmacy" was uppermost in his thoughts.

Dentifrices.

We reprint from "The Lancet" this article, in which our contemporary's analyst comments upon a number of samples of dentifrices which he bought from retailers, analysed, and reported upon. The results are not without interest, and much can be added to the article by perusal of the "Dental Preparations" chapter of "Pharmaceutical Formulas," in which recipes for all the kinds examined by the analyst are provided.

MODERN dentifrices may be divided broadly into four groups: (1) Powders, (2) pastes, (3) solid soaps, and (4) fluids. The demand of the public appears to be in favour of powders, pastes, and soaps, the presence of a mechanical agent in these being appreciated, while such is usually omitted from fluid preparations. Of nineteen samples of dentifrices which we recently purchased in the

According to laboratory examination a constituent common in dentifrices is chalk, and as an antacid it has claims, but it possesses no germicidal or antifermentative properties, and, though serving as an effective mechanical detergent, may, unless it is a finely triturated preparation, injure the enamel by erosive action. It should, in other words, be free from gritty particles which are likely to scratch. Other mechanical detergents are employed—as, for example, silicious substances like kieselguhr and talc, which, however, have no acid-neutralising properties and may contain particles capable of producing injury to the enamel. A finely comminuted mechanical detergent containing an effective antiseptic seems desirable, but it is extremely important that this detergent should be perfectly smooth and free from gritty particles. The removal from the cavities of the teeth of decaying particles of food which are readily hydrolysed and fermentable is not always possible by the tooth-brush alone, and it has been

The Composition of Dentifrices.

Number of Denti-frice	Moisture	Ash	Insoluble Ash (chiefly Chalk)	Soluble Alkali as Na ₂ O	Alcoholic Extract (chiefly) Soap and Glycerin)	Microscopical Observations	Antiseptic Agents
POWDER	% 0.54	% 88 82	% 88 12	% 0.68	% 0.46		
1	0.54	88 82	88 12	0.68	0.46	Uniformly sized chalk particles, with a few angular pieces; starch present.	'Aromatics.
2	8.27	63.28	62.56	0.61	3 20	Uniformly sized chalk particles, but not well levigated; starch present.	Phenols.
'3	7.15	36:00	32.33	3.25	2 40	Starch granules, fine chalk particles, but not uniformly distributed.	Aromatics.
4	1.50	82.00	77.50	3.95	30.0	Well-levigated, uniformly sized chalk particles, quite non-gritty.	Essential oils, pepper-
- 5	Nıl	71.20	66.43	4.23	10.40	Well-comminuted chalk, with starch granules, non-gritty.	Wintergreen.
6	3.50	59.50	47 91	1-40	4.40	Fine, smooth chalk particles, non-gritty.	Clove, essential oils,
_ 7 -	3.20	64.80	60 99	3 38	16 04	A finely comminuted powder, free from irregular	available oxygen. Oxygen and thymol.
PASTE					70.04	particles.	
8	2.00	31.80	11 20 (silica)	0.53	36.84	Irregular sized mineral particles, with starch granules.	
9 🥒	32.75	33.00	29 13	3.44	34 20	Smooth and well-comminuted chalk quite free from gritty particles.	Peppermint, thymol.
10 11	26.31 14.62	21 44 13.21	14.74 11.16	5 91 1.37	- 42.64 51.44	Particles irregular in size, comminution not good. Starch granules and a few irregular mineral	Thymol, wintergreen. Aromatics.
12	26.62	-	16 98	3.67	53.36	particles. Contained a well-comminuted powder, perfectly	Benzoic and essential
		21.12				smooth and free from grit or irregularities.	oils, peppermint, etc.
13	18.58	32 43	20 20	10.80	35.44	Irregular particles; the chalk not sufficiently comminuted; some starch.	Essential oils.
14	23.10	36 58	36.04 *	0 47	32.00	Very fine and smooth chalk particles well com- minuted.	Menthol.
15	20.35	19.32	18 61	0 60	51.64	Somewhat coarse particles, showing defective levigation; some starch.	Thymol, eucalyptus.
SOAP 16	5.60	35.70	22 98	11,20	71.42	Good round particles of chalk, but capable of	Aromatics, essential
17	4.89	28.44	13.86	12 20	81.25	further levigation. Good smooth and regularly sized chalk powder	oils. Essential oils, per-
FLUID	1.03	. 20.44	13.00	22 20		present.	fume.
18	99.83	Nil	-	-,		Clear fluid.	Essential oils, menthol.
19	(alcoholic) 72.02 (alcoholic)	1 63	· Nil	1.40	27.98	Clear fluid.	Aromatic and essential oils.

open market seven were powders, eight were pastes, two were solid soaps, and two were clear fluids. Many formulæ of dentifrices have been published from time to time, and in most cases the design appears to aim at securing the combined offices of a germicide, antifermentative, deodorant, antacid, and a mechanical detergent. Such a combination presents no difficulty in the making, but it is important that the materials chosen should be carefully prepared and blended and free from injurious constituents, and that the whole result should be attractive. It is the invasion of the enamel by disease organisms which begins in many cases the degradation of the tooth, and the process of decay, unless arrested, leads eventually to that exquisite trouble so widely experienced. This has led to the policy of maintaining mouth-asepsis, the careful cleansing of the teeth being now put into very general practice by the daily use of the tooth-brush and a dentifrice. A dentifrice may clearly do more harm than good if it is carelessly prepared or contains inappropriate constituents, and its choice is therefore important.

said on good authority that the chewing of coconut or even an apple acts as an effective scourer of the teeth with the free use of the wet brush afterwards.

Soap, again, is a very common constituent of dentifrices, and is often associated with chalk. It serves, of course, as a cleanser and antacid, and there can be little objection to its use. It also acts as an adjuvant, favouring the formation of a uniform emulsion. Among other adjuvants or excipients used in dentifrices are glycerin and sometimes sugar.

Among the antiseptics chosen is a wide range of essential oils and aromatics, all of which possess more or less germicidal properties. Popular among these are thymol, carbolic acid, hydrogen peroxide, benzoio acid, wintergreen, and the mint oils. Cinnamon also is a favourite, and it is known to have valuable antiseptic properties.

These generalities considered, we may pass to the actual results of our examination of a number of dentifrices which fairly represent the kind in public use at the present

We deal with them in the order already set out, which is as follows: (1) Dry powders; (2) pastes; (3) solid

soaps; and (4) fluids.

(1) Dry Powders.—As will be seen from the accompanying table (p. 95), these all contained chalk (mostly represented in an insoluble ash effervescing in acids) in prominent quantity, the percentage amount lying between 32.33 and 88.12. In many cases the chalk was not finely comminuted, as an inspection of the table will show. With two exceptions soap was present and an antiseptic, such as phenol and thymol, and essential oils, of which eucalyptus appeared to be in favour. One contained a decided amount of sugar, and others starch granules, the desirability of which is doubtful. In two instances the powders were found to yield available oxygen on suitable treatment. These preparations would probably have a slight bleaching effect on the teeth. Most of the powders were agreeably perfumed, and in certain cases orris-root was a considerable constituent.

(2) Pastes.—The pastes showed, generally speaking, a wider range of composition than the other preparations examined. The substances found included chalk, sugar, soap, starch granules, silica, areca, and germicidal sub-stances, among which were benzoic acid, wintergreen, thymol, mint, and other essential oils. In one case in which thymol was used the preparation had a rather sharp, stinging effect on the tongue. On the whole, the chalk present in these pastes was in a much better state of comminution than in the dry powders. In this respect some were decidedly superior to others. As the microscope showed, the mechanical detergent was here and there crude, presenting irregularly sized and gritty particles likely to damage in the long run the enamel of the teeth. It is most desirable that chalk and kindred mechanical agents should be very finely triturated. Where this was the case the dentifrices were excellent in their effect and very agreeable to use. The presence of sugar, both cane and glucose, may be open to objection, and it is probable that these substances have recently replaced glycerin owing to the restrictions on the supply caused by the extensive use of this substance for war purposes. Another hydrolysable carbohydrate-starch-does not appear to be a desirable ingredient of a dentifrice.

(3) Soap Dentifrices.—Soap-tablets for purposes of cleansing the teeth are commonly combined with some chalk or phenol or essential oils. The oils are generally of the character of perfumes, and cinnamon seems useful. On the whole, the chalk in these preparations was fairly well comminuted, but some specimens might well be

improved in this respect.

(4) Fluid Dentifrices.—These consisted generally of a solution of essential oils in spirit. When added to water a milky fluid results, which, however, can possess little, if any, mechanical detergent action to speak of. In one case there was also dissolved in the spirit some soap.

In conclusion, we do not pretend to have exhausted the subject, but we think that sufficient information has been obtained in the course of the inquiry to show the chief points in regard to the composition and character of the dentifrices which find public patronage.

The Cachet.

MADE in form of shallow pit, Every lid must nicely fit; Paper pulp on paper pulp, Always swallowed with a gulp.

Sometimes called "Cashay" "Cachet." Either name will suit me yet; Don't you worry, don't you fret, If for me the cash you get.

Not the poor man's dope am I; Sadly they must pass me by-Have their physic crude and strong, With a taste that lingers long.

For ensuring action sharp, Fiat pulv.—in pericarp "Can't be licked," the takers say. P'raps they have been-anyway.

Poster Possibilities.

By Thomas Russell, President of the Incorporated Society of Advertisement Consultants.

A MONG the many and varied ways in which the public can be talked to, the one to which least attention has generally been given by chemists is the poster. They realise that no form of publicity is more commanding; they are aware that the boldest of wholesale advertisers use billposting freely, but the real economy of poster advertising is hidden from them. They regard the poster as a thing wholly beyond the reach of a local advertiser. In his text-book of poster advertising * Mr. Cyril Sheldon has shown exactly what it would cost any chemist to put an ordinary-sized poster on the walls of his own town for three months. There are full figures for every town and village in the United Kingdom which has billposting facilities. He has also shown what the cost of printing the necessary bills would be, and when the reader comes down to actual figures, he quickly perceives that the cost is nothing very frightful after all.

Of course, the facts were obtainable before. Any

chemist could have gone to the local billposting company and found out for himself. But he would have hesitated to embark upon so new a mode of business-building for lack of knowledge. He would have felt that he was taking a leap in the dark. Mr. Sheldon's book is so complete and yet so elementary in its exposition of what billposting is, what it is able to do, and what it costs. down to the last detail, that it ought to set numbers of

people thinking about posters.

As already remarked, there is nothing new about the facts. More than a year ago, addressing a Northern audience, I showed that a retail advertiser, if he could afford thirty shillings a week for advertising in the local papers, could equally well afford billposting, since a three months' display of posters in the town where I was speaking, would cost—posters included—somewhere about twenty pounds. Hitherto, billposting for commercial purposes has been done by large wholesale advertisers alone. A good many of those whose goods reach the public through chemists have created demands in this way very efficiently and with great economy. Mr. Sheldon makes an arithmetical comparison of what it costs to reach the attention of an equal number of people by the three most usual advertising methods—newspaper advertising, circulars, and posters. He is able to show that posters are beyond comparison the most economical where a large general public is wanted. How billposting is planned and worked his book exhaustively teaches, and the exact statistics of every detail make it well worthy of perusal by chemists who wish to enlarge their connection by a mode of advertising in which, as yet, there is far less local competition than they would find in the newspapers of the town. Owing to war conditions, moreover, it is known that posters-though, like everything else, they cost more to print—are far more effective at the present time than in normal seasons. There is no difficulty in finding out from the local billposter in any town how many posters would be required to give a good display, and what size they ought to be. All posters are printed in multiples of a sheet of paper measuring 20 inches by 30, and called technically "double crown." In average-sized towns a poster having an area eight times this size will generally be quite large enough for a retail advertiser, making a poster 80 inches by 60: there are towns where four times the size would suffice—60 by 40. The most expensive part of the job would be the preparation of the posters, because this costs, on a small number, far more than the paper and printing. It would be safe to say that the number of posters which a chemist would need could in most cases be had for about ten pounds. It is difficult to give any general idea of what the billposter's charge would be: the expense is different in each town. Mr. Sheldon's book gives the figures everywhere. Many towns could

^{*}Billposting: A Practical Handbook and Work of Reference for the Use of Advertisers. Edited by Cyril Sheldon. (Leeds: Sheldons, Ltd., Cookridge Street. 10s. 6d. net.)

put up a sufficient number of posters for three months for somewhere between fifteen and twenty-five pounds, so that the total cost would run to 35l., or less than 3l.

A chemist having a proprietary line, a toilet-article or a medicine, capable of being advertised by posters, could therefore make a start in his own neighbourhood without risking any ruinous amount of money; and when he had proved that the article was wanted by the public, he could extend his operations to neighbouring towns, inducing his brother pharmacists to carry his goods at a protected profit. Gradually working outwards in the way, and extending his billposting, he might hope in time to arrive at a nation-wide business. There have been chemists -in St. Helens, in Hull, and elsewhere-who have begun in a small way of business and achieved results not unpleasing. Their example is worthy of ambitious consideration. Billposting is a way to start with less risk than would be involved in some other methods of advertising. Mr. Sheldon's book tells how to do it.

Street Pharmacy in Paris.

Ir would be too much to say that the outdoor hawker of remedies and sundries has altogether disappeared from the streets of Paris. At the January fair, when the booths line the Boulevards, one may still run across the eloquent vendor of cough-remedies and other seasonable goods. But it is certain that the number of such itinerant dealers is rapidly diminishing as manners and customs alter and transport facilities and general comfort augment. Hence the interest of these two old prints, picked up at a secondhand bookstall on the quays of the Seine.

Foulquier, the artist, was a well-known man in his time," the official at the Print-room at the Bibliothèque Nationale hold me. "These

told me. "These sketches were probably pot-boilers, dating from the struggling days when he drew types for the illustrated papers, before he became a famous en-graver."

Both types are now as extinct as the dodo, or the "porteur d'eau," whose cry was so familiar to Parisians in the days before we thought comfort required "hot and cold laid on" in our flats. In his contribution to the "Diable à Paris" (1845, the same year in which the sketches were made). Balzac tells us that the grocer's shop that the grocer's shop is doing away with the rat-poison pedlar, who is here depicted with his pole adorned with the corpses of his victims. This must have been one of the last survivors of the last survivors of the profession.

Equally characteristic of the days of Louis Philippe is the



MARCHAND DE MORT AUX RATS.

cau-de-cologne merchant, who has a curious resemblance to the Citizen King, with his inseparable and voluminous umbrella, his ample girth, and even his features. The tin boxes and the syringe tell their own tale of wares and sampling; the hat and coat have evidently seen better days, on some of the flunkeys whom Thackeray, in those days, loved to depict. Both he and Dickens knew this Royal Paris.

Other types some older Parisians can remember. Who did not know the "Père Cafard," who for a modest though appreciable sum undertook to clear your premises of cockroaches? The consumption of the famous insecticide remained a trade secret. The Père himself flourished at the last Parises Company but he took saveral time of the last Franco-German war, but he took several of his relatives into the business as he grew older. Many

of the Parisian hospitals had a regular contract with him; he charged 10l, the first year and 5l, for each subsequent faction was expressed at the fulfilment of his contract. He faction was expressed at the fulfilment of his contract. He had two thousand restaurants on his books, and boasted that Rothschild himself was his client—he was employed by him to rid a yacht of the insect pests.

The tapeworm in a glass bottle is still to be seen in the windows of some Paris and many provincial pharmacists as a vermifuge advertisement. It may be of human

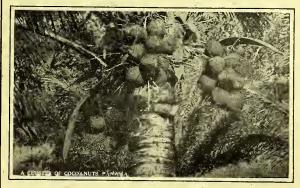


MARCHAND D'EAU DE COLOGNE.

origin in some cases. Did not a French M.P., in days gone by, sue a pharmacist who had exhibited a fine specimen with the Deputy's full name on the accompanying card? But the merchant who specialised in this line confessed to a reporter that the canine tribe were the founders of his fortune. He bought lost dogs at the "Fourrière," and, when he had acquired a sufficient stock, he went round all the pharmacies of Paris, disguised as a ward-attendant from the Necker Hospital, where the malady was specialised. He boasted that at the moderate price of 5f. apiece he secured the clientèle of half the Parisian pharmaciets. pharmacists.

Years ago the bridge between Notre Dame and the Ile St. Louis was the pitch of an outdoor pedicure, who cured corns by contract at a fixed price—no cure, no pay—and enjoyed a certain local reputation.

The same island boasted a peppermint-water vendor, who also flourished, selling at 5f. a litre a refreshing beverage of which the original cost was something less than a tenth of that sum!



A COCONUT-TREE AT PANAMA, SHOWING A FINE CLUSTER OF NUTS.

Diabetic Business.

The object of these observations is to show clearly how the modern retail chemist may build up a valuable and remunerative business by specially catering for the diabetie patient.

The first essential is to know generally the peculiarities incident to diabetes, and the remedies which find favour with physicians. Furnished with this information, you will be able to converse intelligently with your customer and thus gain his confidence. Assuming that all diabetic patients are under medical treatment, our business is to enable the patient to secure and the doctor to carry out their objects satisfactorily. The characteristics of diabetes may be readily gleaned from medical works in any reference library. It may be conceded that the opportunities of the city library. It may be conceded that the opportunities of the city chemist in specialising for diabetics are more numerous than those of his country confrère, but we shall see that "nothing is denied to well-directed labour." As to diabetic prescriptions, generally speaking these are very profitable, as the treatment must be continued for a lengthened period. Therefore, in addition to their own profits, they bring sales for general articles by causing repeated visits to your establishment.

The next essential is to have an intimate knowledge of the various biscuits breads, meserves etc., which are not

The next essential is to have an intimate knowledge of the various biscuits, breads, preserves, etc., which are put on the market specially for this class of patients. To acquire this, you must obtain the price-lists of diabetic-food specialists as advertised in the C. & D. These lists are comprehensive, and show a good margin of profit. They will give you information regarding rusks, bread, highly a preserve angular contractionery, etc. Such firms biscuits, preserves, sugarless confectionery, etc. Such firms also supply booklets relating to diabetes. A supply of these, with your name and address, goes a long way to advertise you as a "diabetic-food specialist." You should also have one or two nice large showcards printed to the effect that you stock or deal in all diabetic preparations, and a supply of the same, the size of a viciting and for and a supply of the same, the size of a visiting-eard, for inclusion in all your parcels. Arrange your prices so that you can afford to pay earriage on orders from a distance. This is a point of much importance, especially to the country chemist.

The third essential is to note the faet that if you are to succeed with diabetic patrons you must study their peculiarities or whims. From the nature of their complaint, many of them are fastidious. Therefore, as in all branches, so particularly in this, study your customer. Soon you will have gained his or her confidence by painstaking care and prompt and accurate execution of all orders. Then will undoubtedly follow your recommendation to other sufferers. Remember you are catering as a rule for the better classes, as only well-to-do people can afford to buy diabetic preparations. It is quite common to have a customer buying from 15s. to 30s. worth per week. It is obvious therefore, that even a few such patrons yield a substantial income. Therefore do everything in the best style possible, for this is trade worth seeking after.

As to the likes and dislikes of your customers, some prefer the preparations of one particular firm, others take spells of different foods. For such you could buy in bulk a reliable flour with the guarantee of a reliable analyst that it is suitable for diabetics. This you may tin and The third essential is to note the fact that if you are to

that it is suitable for diabetics. This you may tin and label as your own diabetic flour, with a series of recipes for home baking. Or your may arrange with a local baker to make it into loaves for you. Once get a start in this line, and your reputation quickly spreads. You may also put up diabetic drinks and pastilles of your own manufacture. An ordinary mould for soft gelatin pastilles is all you require for the latter, using saccharin and various

flavouring-agents.

The next point is of particular value, both financially and as securing a good reason why all diabetic patients should patronise you. It is urine-analysis, and particularly testing for sugar. For this purpose there is no handier, more concise guide than the "Practical Methods of Urine Analysis" (C. & D.). With this as your guide and perseverance to secure accurate determinations your reputa-tion will spread. Advertise the fact that you are prepared to carry out experiments to ascertain, at a reasonable fee, to carry out experiments to ascertain, at a reasonable fee, the sugar-content of urine samples. For repeated tests you should have a reduced scale of charges. Boom this department for all it is worth, for there is money in it. Intimate the faet to doctors in your neighbourhood, and state reduced terms for medical men who in many cases will send their samples and thus save their own time while securing the report of an expert. Write your reports concisely and neatly. Convince vourself that you know your business, then make it your business to convince others.

Information Department.

INFORMATION WANTED.

Postal or telephone information with respect to makers or first-hand suppliers of the undermentioned articles will be appreciated. "Gripwell" feeding- 194/24. "Holborn" bottles.
24/73. "Pillar-box" sct, complete in mahogany box. 193/64. "Pixie" night-lights. 193/64. "Radjo." fumigating ribbon. 193/49. "Kreso." 182/50. "Renshaw" sprays.

INFORMATION SUPPLIED.

Inquiries regarding the following articles have been answered. The information as to supply will be given to others who send a stamped, addressed envelope to the Information Department, The CHEMIST AND DRUGGIST, 42 Cannon Street, London, E.C.:

" Acrosyl," 182/69 Ammonium sulphate, 179/61 Anger's worm-balls for puppies, 177/14 Antiseptic paper handkerchiefs, 186/58 "Asiatie" body-cord, 181/14 aines' dielectric emulsion, Baines' "Barkola," 173/43 "Barkola," 173/45
Basic slag, 179/61
Bickmore gall-curc, 192/19
Binn's metallic combs, 191/58
"Bipp," 187/63 "Bipp." 187/63
"Bitrate of tar," 192/17
"Bitro-phosphate," 173/29
"Borozon" tooth-paste, 172/38
Bowden's Indiau balm, 177/33
Bronze powder, 193/2
Calder's dentifrice, 189/8
"Camphoradyne," 179/48
Carbolineum wood-preservative, 169/50 169/50 "Carna" salts, 187/61 Carnrick's liquid peptonoids, 175/42 Cavendish's Cavend'sh's (Helen) beanty specialities, 182/67 Clarke's blood-mixture, 173/32 "Clemak" safety razor, 172/16 Congrev's clixir, 192/19 "Crembas," 177/16 "Crembas," 177/16 "Cynpino," 185/35 Dale's plasters, 186/41 "Damaroids," 188/12 "Di-electric oil," 194/26 and 195/36 185/36 Diabetic flour, 187/67 Dun's capsules, 164/42 "Essolin," 179/65 "Ever Ready" "Flexoids," 185/36
"Furfelt" ches

"Ever Ready" goods, 190/74
"Ever Ready" safety razor, 192/70
"Bayeside" 185/36 chest-protectors, 173/30 Gelatine soothers, 193/60 " Marie

(Helen) beauty

Gelatine soothers, 193/60
"Gelomax," 187/71
Godfrey's inhaler, 181/22
Hair socks, 194/37
"Infantina," 172/26
Kenneth Wilson's "I
Rosc" egg-wash 177/67
"Kutisol," 18/64
Lee's antisentic air-produced ce's antiseptic air-produced and scientific inhaler, 177/21 air-producer

Lime superphosphate, 179/61 Mackenzie's smelling salts, 175/44 "Majax," 173/28

Matricaria infants' powder No. 1, 170/63 Metal hot-water bottles, 179/49 Mortars and pestles, 174/46 "Morrhuol," 180/67

"Mum," 173/29
"Mysto" meta sprayers, 183/14 metal telescopic

sprayers, 185/14
Naphthaline powder, 169/68
Needles, surgical, 193/73
"Neosol," 192/16
Nickel clinical - thermometer cases, 173/6

cases, 173/6
Nitrate points for caustic pencils, 179/38
Nitrogen gas compressed in cylinders, 192/26
"Nutrine," 174/26
"Osacol," 178/30
Payan's Poudre de Riz, 173/43
"Petrole Hahn," 186/44
Pill.hoys, 186/45

"Petrole Hahn," 186/ Fill-boxes, 186/45 "Pural" food, 176/23 "Pynalant," 186/41 "Pyonex oil," 181/34 "Pyarrhocide" tooth 179/50 Riker's toilet spe tooth-powder,

toilet specialities, 189/24 Robin's peptonate of iron drops, 193/56

193/56
"Sanaseptic," 187/66
Sand soap, 173/28
Sanguinaria Co., 192/60
Scidlitz powders (pr. 171/27 (packers), " Seroden," 193/10

Sodium-hypochlorite 181/57 Sodium nitrate, 179/61

sodium nitrate, 179/61 Sphagnum moss, 184/14 Straw boards, 181/11 "Svrup Rami," 191/62 "T.E.C." electrical specialities, 190/74 Tablet-machinery, 174/46 "Thymoform" tablets, tablets, 170/22

Time-recorders, 182/59 Tucker's asthma-cure, 174/37. 176/24, and 187/15 "Universal" vacuum flask Universal 173/46 vacuum flask.

Valentine's meat-juice, 172/27 "Zematone," 182/51

APPRECIATIONS.

From a firm of Manufacturing and Export Chemists:
"We are very much obliged to you for the extracts from —, which are of much assistance to us. It reflects great credit, in our opinion, on your Information Burcau. We have previously taken advantage of your Information Bureau, and always found it extremely useful."—(62/28.)

From a large firm of Honey-importers in London: "In reply to your letter of the 14th inst., we are much obliged for the information you have given us. It is most useful."—(161/32.)

From an historic London firm of Wholesale Druggists'

Sundriesmen:

"We are obliged for yours, and are glad to have received by same post an order from Messrs.——for——as the result of your good services, which we much appreciate."—(174/13.)

Observations and Reflections.

By Xrayse: II.

The London Insurance Committee

has at last paid the balance due for dispensing during 1915, bringing the whole payment to a fraction over 91 per cent. of the total credit. In a case in which I am interested this amounts, in round figures, to 25*I*. It is, I confess, more than was expected, and it is perhaps perverse to grumble, but one cannot help speculating as to what has become of the interest for the year on this balance. Has it been added to the sum paid, or has it vanished into thin air? In the aggregate it must at present rates of interest amount to a tidy sum.

The Desirability of a Minimum Price-list

is a subject There is on which I must confess to an open mind. something to be said in its favour, but there is, on the other hand, a serious danger of working down to the minimum level. Certainly the list just published by the London County Association has opened my eyes pretty widely; I had no idea that such prices as some of those quoted ruled anywhere, and I still cannot see how they are possible. Take the case of camphor, or of chamomileflowers, or of saltpetre, for example; each of these is quoted in quantity at less than on some current wholesale lists. And what sort of essence of lemon or of peppermint is sold at sixpence per ounce, and why is linseed quoted at a higher rate per pound than per quarter? The list has other faults; the items are very arbitrarily chosen, and they are not well arranged, senna occurring under fol., chamomiles under flor., and so on. Rhubarb appears in English, not, as do most drugs, in Latin; borax as sod. bibor., but cream of tartar as crem. tart. are small matters, but they show a want of system that is not a small matter. Generally speaking, the prices quoted for proprietaries are satisfactory, as things go, but here, again, there are two or three things which I cannot buy at the figure. If worked out according to the rules given, dispensing prices will, I fancy, very often be a good deal higher than the fixed minima. The surplusstock list ought to be useful.

Suggestions for the "Combing-out"

of eligible men from retail trades have been rife of late, but most of them are of an amateurish, impracticable, futile kind. They would not, if adopted, affect us pharmacists to the same extent as other traders, but they are worth considering as premonitory of what we may expect if the war goes on very The suspension of the credit system has much longer. been most persistently urged, perhaps because credit is so often abused as to have got a bad name. Long credit deserves the worst that can be said of it, and the business that cannot be carried on without it is, to say the least, a very exceptional one, but the system of weekly or mouthly credit is almost essential to some trades, and its suspension would seriously cripple them. Since such bookkeeping as it necessitates can be done just as well by women as by men, there is no reason why it should be suspended. The proposed curtailment of window-dressing is equally unnecessary and unreasonable. In most cases women can here, too, supply the place of men, and where they cannot the prohibition would be very unjust unless it were universal, and to make it so would entail a loss to business out of all proportion to the gain in man-power. gestion that newspaper advertisements should be substituted for window-dressing is a capital instance of ineptitude, in present circumstances. The prohibition of calling for orders is even more foolish than the other suggestions, if that is possible. It would surely be sufficient to forbid the employment on this work of men passed or fit to be passed for military service, which is virtually done already.

Mr. Maben is Right.

To the scientist Greek is more important than Latin, because a much greater number of scientific terms are taken directly from the former language, and this is true, not of English only, but of all modern languages. Moreover, most of the new coinages of scientific nomenclature are formed after the Greek model-are, in fact, new Greek compounds such as would doubtless have been framed in ancient Greece had the necessity for them arisen. Of all languages Greek is supreme for lucidity and precision; it has an unrivalled power of forming compounds, and of producing whole groups of words of unmistakable meaning from any verb or noun. Take, for example, our words beginning with p, and we may form some conception of our debt to Greek. All words in placo-, plasmo-, platy-, pleio-, pleo-, plesio-, pleuro-, pneu- podo-, poly-, pachy,- paedo-, palaeo-, palin-, pan-, panto-, para-, patho-, pento-, perto-, patho-, panto-, para-, patho-, pento-, perto-, pe cant exceptions, every word we have, whether scientific or not, in ph-, are from the Greek.

The Dosage of Thyroid Gland

is, in the opinion of many practitioners, a matter of very great importance. very many years ago it was the fashion to prescribe large doses, but recent practice has gone to the other extreme. Dr. Leonard Williams, an authority on thyroid therapeutics, showed long ago that it is possible to have too much of a good thing, and that large doses of thyroid are liable to be a source of danger to the patient. tunately, few doctors know what they mean when they prescribe thyroid tablets. The B.P. substance is thyroideum siccum, but we never see this prescribed; most frequently it is simple thyroid, but often thyroid extract. There is no such thing as thyroid extract, though there is some analogy between such a substance and the B.P. dry thyroid. Hitherto the subject has simply been perplexing to the pharmacist (if more serious to the customer), but now it threatens to be financially embarrassing as well. One grain tablets of the dry gland cost double the price of tablets containing the equivalent of one grain of fresh gland, and if Insurance prescriptions are being priced according to the latter, the chemist stands to lose considerably if he supplies the former. It is high time there was a definite decision as to what "thyroid" actually means in a prescription, and I suggest that a representative from each of the four ruling bodies—the General Medical Council, the Insurance Commissioners, the British Medical Association, and the Pharmaceutical Society might confer and issue a definite ruling on the subject, and perhaps a form of label which manufacturers might follow.

Prussic Acid,

or, as it used to be called, Prussian acid, owes its name to the fact that it was first obtained from Prussian blue. This was by Scheele, in 1782. Prussian blue itself was first produced in 1704, by a fluke, and it is curious that neither did its author suspect its value nor Scheele, apparently, the poisonous property of its acid-there is, at least, no hint of this in the account of his discovery in his "Essays," as condensed by Nicholson in 1790. Both the acid and its name will acquire a new and sinister significance if, as is reported to be likely, the Germans use prussic-acid shells in the coming spring campaign. Experiments with this object are said to have been already made, and in Switzerland possible antidotes for them are being sought. The Paris Codex was, I believe, the first Pharmacopæia to include the acid, the formula adopted for its preparation being that of Gay-Lussac, which consisted of treating bicyanide of mercury with hydrochloric acid. The P.L. of 1836 included Prussian blue (ferri percyanidum), potassii ferrocyanidum (the official source of the acid), and the acid itself in the form and under the name of Acidum Hydrocyanicum Dilutum. Its use as a weapon of war will be a reversion to savagery, the poison shell taking the place of the poisoned dart.







"A revolution in the art of Urine Testing."-Medical Press & Circular.

ENDOLYTIC TUBES

"The Laboratory in the Waistcoat Pocket."

Wholesale Terms on application to the Sole Proprietors:
FLETCHER, FLETCHER & Co., Ltd., HOLLOWAY, LONDON, M.

Editorial Articles.

Bettering Business.

We had recently (C. & D., January 13, p. 42) the opportunity of commenting upon the Board of Trade Returns of exports and imports from and to the United Kingdom during 1916. It will be remembered that the figures showed that the year's business was exceedingly satisfactory in spite of the exceptionally great difficulties that afflict the whole world at present. It is satisfactory also to learn that the business of France is keeping good, and is showing similar improvement to what we are ex-

periencing. These conditions are gratifying, as we are subject, like all the rest of the business world, to war conditions that delay or stop industrial pursuits and smother commerce. It is now almost two years and a half since "Business as Usual" was suggested as the policy for this country, and the idea was adopted, and has worked well. Now it is possible to find many reasons against the idea. We are up against difficulties that have not been experienced in normal times, but the fact remains that the world expects us to carry on business as usual, and this has been done, the work is going on, and so far as the chemical and drug trades are concerned we submit that this Winter Issue of THE CHEMIST AND DRUGGIST proves that those engaged in the chemical, drug, and allied trades are contributing to the welfare of the nation by keeping up business at home and abroad.

This Winter Issue also reflects matters which are prominent in this war-time, and this necessarily is one of the objects of the issue. We comment on some of these. It is a well-known fact ENEMY TRADE-MARKS, that the British law is exceedingly careful in limiting the rights of persons to whom monopolies are granted. For example, letters patent do not extend protection of the articles produced for a longer period than fourteen years, unless the patentees obtain, in very exceptional cases, orders from a High Court that warrant a continuance being granted for a short period by the Board of Trade. It has also been established and upheld by the High Courts that if an article is patented "when the patent expires anyone is at liberty to sell it under the name by which it has become known in the market, and if nothing more is done the patentee has no redress." This principle has long been followed in this country, nevertheless German manufacturers have been in the habit of registering trade-marks for patented articles, and we print on pp. 69 and 70 a list of ninety-nine familiar names of chemical products, monopolies in respect to each of which were granted by letters patent, but further protection has been obtained through the registration of trade-marks for the articles. Under the Patents, Designs, and Trade-marks (Temporary Rules) Act, 1914, the Board of Trade has power to order the avoidance or suspension of any licence or registration, certain formalities and fees being required. It has on more than one occasion been mentioned at the hearings of war applications in respect to trade-marks, that a mark is registered in respect to a patented article, and its validity is doubtful. Yet the Board of Trade requires that in the case of all the patented articles for which a trade-mark is registered application must be made for the avoidance of each of them, thus involving expenditure of time and money, which we submit is unnecessary in view of the fact that the principle was decided by our Courts many years before the war, and the present conditions warrant the avoidance or suspension of the marks by order of the President of the Board of Trade, as was done with "Sanatogen" and "Formalin," without reference to the

in the matter.

Few things have better illustrated during the war the potentialities of British business men than the manner in which various parts of the Empire have

special Court. We trust there will be no further delay

Business as Usual. In which various parts of the Empire have risen to make good defects of trading organisation which have arisen through the methods of production being modified

the methods of production being modified consequent upon the war and the carriage of goods hampered by our enemies. In the article "How they Got the Goods," which begins on p. 78, several chemists in India tell how all the difficulties have been overcome in the Indian Empire. This follows a description of the work done in the Imperial Institute during recent years, and it will be noted that since the war commenced the Institute has done excellent service in helping to place in British hands certain industrial undertakings that were previously monopolised by Germany, although the raw materials were of Pritish origin. The article shows that the Institute is now coming into its own, and has facilities for doing public and industrial services in matters that have been neglected.

What is a Sweetmeat?

THE Sugar (Confectionery) Order, 1917, which we printed last week (page 33), regulates the price at which chocolates and sweetmeats can be sold retail, the maximum prices being 3d. and 2d. an ounce respectively. The Regulation comes into force on February 1 as regards the supply by manufacturers to retailers of higher-priced chocolates and sweetmeats, and on May 1 as regards the retailing of these commodities. The Order does not define "sweetmeat," which is perhaps not to be wondered at, although it is unfortunate in some respects. The drugtrade is interested in the matter because some of the lozenges which are sold in the ordinary course over the counter may be regarded as "sweetmeats" as they are sold also by confectioners. We have looked up the definition of "sweetmeats" in the chief dictionaries of the English language, and find that whereas the term was in the older dictionaries confined to "Delicacies made of fruits preserved with sugar " (Johnson), the more modern definitions include "An article of confectionery made wholly or principally of sugar" (Ogilvie). It is in the latter sense that the word must be taken, as the object of the Sugar (Confectionery) Order is to effect an economy in the amount of sugar used other than for purposes of nutrition. Several inquiries have reached us regarding the view that will be taken by the Food Controller of the sale of several lozenges commonly obtainable at the chemist's shop. The following are some of the varieties about which doubts have been expressed:

Lozenges.—Aniseed, black-currant, cinnamon, ginger, lavender, musk, peppermint, rcse.

Jujubes and Pastilles.—Black-currant, glycerin, liquorice,

magnum bonum.

Cachous. - Floral.

The wholesale price of these does not admit of their being sold at 2d. per oz., although some of the lozenges, such as peppermints, are obtainable at cheap rates and could be sold at the official rate. Such peppermints, however, are almost devoid of peppermint oil, and obviously cannot be prepared with the choicer growths of the oil. It is therefore of interest to chemists to obtain some authoritative decision on the matter, because the view is that some of these lozenges cannot be regarded as medicinal. We are prepared to admit that some may be on the borderline. Aniseed, ginger, peppermint, and rose lozenges were mentioned in the schedule of the Medicine Stamp Act, 1812, and were consequently regarded at that date as medicinal. What has happened within the intervening years has been a widening of the field within which different traders carry on commerce, and the evolution of the confectioner as a purveyor of lozenges formerly re-garded as medicinal. It is important to bear in mind that a lozenge as known to pharmacists is a pleasant form of administering certain medicaments, and it requires no great stretch of the imagination to regard a peppermintlozenge as more convenient for the user than a lump of sugar upon which a few drops of peppermint oil has been placed extemporaneously. Our view is that the retail price of this class of lozenges being higher than 2d. an ounce ensures that they will not be purchased largely as "sweetmeats." In the case of cachous, whether floral or silvered, it should be remembered that these are mostly used for hiding bad-smelling breath which may be due to stomach or oral troubles. It is not usual to eat these in quantity, two or three cachous at a time being used probably. We placed the matter before the Food Controller last week, and, although no decision could be given at the time, we were promised that a reply would be sent when the views had been considered.

Index to Volume LXXXVIII.

As stated in previous issues, we shall supply the Title-page and Index for the volume of The Chemist and Druggist for 1916 to all subscribers who write to us for it. We suggest that they should ask for this by postcard addressed to The Chemist and Druggist, 42 Cannon Street, London, E.C.

French Export Tax on Chemicals.

CONSIDERABLE surprise has been expressed in chemical circles in this country by the action of the French Government in placing substantial taxes on the exportation of some of the leading chemical and pharmaceutical products, full particulars about which appear in the "Journal Officiel" of January 6, 1917, and the War Bulletin of the British Chamber of Commèrce in Paris. The following are the rates of export duty and the products which have been selected for taxation:

Articles	Rate of Execut Duty (per kilo. net)
Acetylsalicylic acid (aspirin) Chloralantipyrin (hypnal) Dimethylamino-analgesin (pyramidon) Dimethylphenyl pyrazolone (analgesine, antipyrin, phenazone, etc.) Ferripyrin Salipyrin Acetyl salicylate (salacetol); amyl salicylate; bismuth salicylate; ethyl salicylate; lithium, salicylate; magnesium salicylate; methyl salicylate; salicylate of naphthol (salinaphthol, betol); sodium salicylate Phenyl salicylate (salol)	25 francs 35 ", 60 ", 60 ", 35 ",
Phenyl salicylate (salot) Salicylate of pyramidon Salicylic acid for therapeutic use Note.—Technical salicylic acid destined for the preparation of colouring-matters is exempt from payment of this export duty.	40 ,, 5 ,,

We understand that these rates of export duty may be revised every two months by a special Commission to be instituted by Ministerial Decree, and the duties are eventually to be abrogated by Decree issued in the same form

as the present one.

The "Office des Produits Chimiques et Pharmaceutiques" is to fix the quantities which may be exported, basing its decision on the quantities sold by exporters to foreign countries in 1913, and the allocation or distribution of the quantity allowed to be exported among the firms concerned will be based on the quantities manufactured each month in excess of the quantities required for home distribution. The above taxes will undoubtedly have a serious effect on the exports of the products named, particularly aspirin, pyramidon, phenazone, hypnal, ferripyrin, salipyrin, etc., which are regularly imported from France by agents and dealers, and it is possible that the values may undergo important revision. It is anticipated that exceptions will have to be made in the application of the tax to the requirements of the British Government.

Administrative Expenses.

ONE of the chief grievances in working the drug-contract for 1916 is that the chemist is called upon to pay the administrative expenses of the Pharmaceutical Committee. In the National Insurance Act, 1913, Section 33 (2), it is laid down that the expenses should be granted from moneys available for the provision of Medical Benefit within the area of the Committee. The powers given the Commissioners in the 1911 Act, and extended by the 1913 Act, are so far-reaching, however, that the intention of Parliament can be completely overridden. The Medical Benefit Regulations (England and Wales), 1916, Sectien 8 (1), which provide that the chemists' accounts shall be credited with an amount less a rateable proportion of the sum allotted for administrative purposes, have, in fact, annulled Section 33 (2) of the 1913 Act. A feeling exists among chemists that while not objecting to a legitimate charge for expenses if the whole of the Drug Fund has been spent, the case is different in those areas where 25 per cent. of the Fund is being handed over to the Panel Committee. It is suggested that steps should be taken to petition the Houses of Parliament, within the twenty-one days allowed by Section 65 of the 1911 Act, to have this proposed Regulation annulled. Although the money is found solely by the chemists the Commissioners still require their sanction to be obtained for the various items of expenditure.

Two New Antiseptics.

The war has upset many accepted or established ideas, especially those in connection with antiseptic surgical treatment, such as the treatment of infected wounds. We know how two schools, represented by Sir Watson Cheyne, Bart., as the head of one, and Sir Almroth Wright as the head of the other, contended up to about a year ago, when the hypochlorite or Eusol school seemed to subdue the arguments between the old and the new. There are others, but all are now threatened by "Flavine and Brilliant Green, powerful antiseptics with low toxicity to the tissues," which Messrs. C. H. Browning, R. Gulbransen, E. L. Kennaway, and L. H. D. Thornton, of the Bland-Sutton Institute of Pathology, Middlesex Hospital, have been working on for the Medical Research Committee set up under the National Insurance Acts. An account of their investigation was published in the "British Medical Journal," January 20. It includes many details and particulars, but it may suffice to state here that they find the therapeutic coefficients towards Bacillus Coli Communis of the principal antiseptics reported on to be as follows:

 Ch'oralamin-T
 ...
 0.4
 Iodine (in KI)
 0.2

 Eusol
 ...
 0.25
 Brilliant green sulphate...
 1.7

 Carbolic acid
 ...
 1
 Brilliant green oxalate...
 0.5

 Mercurie chloride
 ...
 1.4
 Flavine
 ...
 200

The therapeutic coefficiencies towards Staphlyococcus aureus differ (400 in the case of flavine), and the antiseptic potencies in serum and water also differ, but the figures we quote suffice to show what a striking antiseptic flavine is. Mr. D. Ligat, F.C.S., in a supplementary note, says: "I regard these substances as satisfying therapeutic requirements for the treatment of wounds in a manner superior to any of the antiseptics hitherto employed." In the course of his paper he states:

"For over a year I have employed flavine compounds and brilliant green in septic cases under my care in the Middlesex Hospital. . . In the case of suppurating wounds the procedure followed has been to secure adequate drainage by free incision when necessary, and then to irrigate with a 1:1,000 solution of the antiseptic in normal saline; finally the wound is covered with gauze soaked in the solution, and protective applied to prevent evaporation. Where there has been a cavity-it has been packed lightly with gauze soaked in the solution."

Mr. Browning and his colleagues in their paper describe as flavine a substance which is quite different from what has hitherto been known as flavin, which is a commercial preparation of quercitron-bark occurring in two forms, yellow flavin being essentially quercitrin, and red flavin containing quercetin. The new antiseptic is thus described by the authors:

"Flavine is diamino-methyl-acridinium chloride, which was originally prepared by Benda at the desire of Ehrlich, and was found to have a very marked therapeutic effect in trypanosome infections. Attention was first drawn by Browning and Gilmour to the powerful action of this substance on bacteria. On account of its trypanocidal action the compound was called trypaflavine, but, as its range of use promises to be much wider, we shall refer to it simply as flavine. It is a fairly stable substance, and solutions may be boiled or heated up to 120° C. in the autoclave.

The preparation of flavine has been worked out by Drs. Barger and Ewins in the chemical laboratory of the Depart-

The preparation of flavine has been worked out by Drs. Barger and Ewins in the chemical laboratory of the Department of Bio-chemistry and Pharmacology of the Medical Research Committee, to whom we are indebted for the products. Arrangements have been made for the commercial production of the substance on a larger scale. The products will be tested biologically at the Bland-Sutton Institute of the Middlescx Hosnital, and will be available for trial on application to Dr. Browning on behalf of the Medical Research Committee."

The important point in regard to flavine is that its bactericidal power is enhanced by admixture with serum, and it is much less detrimental to phagocytosis, differing in regard to the former property from all the powerful antiseptics in common use. Flavine is more efficient and rapid in its action than brilliant green, but the authors think that the latter might be used to promote the healing-up of large cavities.

Paris Revisited in War-time.

By Ernest J. J. Cresswell.

HAVE visited Paris several times since the memorable month of August 1914, when the mobilisation of my company's whole male staff in that city rendered my presence there necessary. Upon no occasion, however, has Paris presented such a contrast to that period as it did when I saw it in November and December last. I was anxious to ascertain the nature of the spirit animating the French nation at the present time. The pervading feeling I described in 1914 as the "Never Again Spirit"; by this I meant that the French had resolved so to act that Germany should never again make war wantonly and aggressively. On my last visit I found that spirit to be intensified.

In the first month of the war, the gathered and prepared hosts of the vile enemy had dealt heavy and repeated blows at the French nation, and its heart, beautiful Paris, was feeling their deadly effect. Its vitality had lessened, its action had slowed down, its pulsation was scarcely perceptible. Now the tables are turned. The enemy is foiled and is being gradually pressed back. Under the repercussion of the vigorous strokes dealt by her own valiant Armies, assisted by the bravest and staunchest Allies that any nation ever had, the heart of great France is beating strongly again. Paris is alive, alert, and throbbing with an intensity of vigour and purpose that she never knew in her days of pleasurable repose and soft dalliance. Her men are fighting or helping others to fight; her women are working, helping, and succouring, showing their sympathy with their defenders in a thousand ways, encouraging them unfalteringly, and praising them when their deeds have won renown.

The life of Paris has now taken on much of its old and normal aspect. Although there are some among the "poilus" on leave who do not like its comparative quiet (one of them said to me, with grotesque exaggeration, that it was like being in a gigantic sick-room, and he was anxious to get back to the trenches to have some jollity), the great majority can but approve of its sobered spirit and the precautions taken to safeguard the city. Nevertheless, there is plenty to amuse the brave men who seek within its gates distraction from the miseries and dangers of the Front, for heroism in France has never been confounded with asceticism and dulness. One sees in all circles of society the desire to be cheerful. In commercial life it is evidenced by great energy and determination to succeed.

"The Gallic cock now goes to roost like the common barnyard fowl," said a witty Frenchman to me, as we strolled along the boulevards in the early evening, when the settling darkness was made apparent by the faint rays of the obscured shop-windows. Yes, but the Gallic cock has sharpened his spurs in combat and is keeping them sharp and bright as he never did before. He even allows more light to be shed from his street-lamp than we do, although he is nearer to the sheds of the Zepps. As compared with London, despite its fewer lights, Paris is indeed "La Ville Lumière." It is much more like its old self now than at any time since the war broke out. The big, singledecker motor-buses are to be seen on some of the principal routes; traffic of all kinds has increased. The shops, which were closed when their owners or managers shouldered their rifles to repel the invader, are now nearly all re-opened. Everybody seems to be working. Paris, notwithstanding its air of pleasure-giving and pleasureseeking, has always been one of the hardest-working cities of the world. The comfort and well-being of its citizens have been brought about by unremitting toil. Paris sccms to make it a point of honour to live its normal life. So this great and noble city shows no fear, no lassitude, and hides its bitter grief for its dead, its maimed, and its suffering sons. One will look in vain for the frivolity of the mere pleasure seekers, yet the theatres and other places of amusement are attracting huge audiences. Grand Opera opens its doors three times a week. Réjane and Simone are holding their audiences enthralled with

the very emotional piece of Henry Bataille, "L'Amazone," which deals in a masterly way with questions arising out of the war. As coal costs 71. a ton in Paris there is necessity for economy in fuel, and in order to save electric light, all places of entertainment have to be closed on one night in each week.

The French are clear and logical thinkers. With their unbaffled and continuous search for beauty, and their worship of the excellent in all things, they combine the close examination of facts and surrounding conditions, and their reasoning is not based upon mere hopes for better things. They have sound reasons for holding the faith that is in them. As an example of this, I may cite that extraordinary book "Lettres d' un Soldat," in some respects the most wonderful work of genius the war has

The great commercial activity noticeable in Paris is consequently not to be wondered at. In the manufacture, as well as in the distribution of chemical and pharmaceutical products, there is great activity. I will deal first

with the former.

Having been brought into personal contact with the well-known manufacturers of pharmaceutical products, Les Etablissements Poulenc Frères, 92 Rue Vieille-du-Temple, Paris, a company with a capital of twelve millions of francs, I asked Dr. Roché, one of their directors, to give me his views on the present position of their industry

in France. In reply he said :

"The manufacture of fine chemicals and pharmaceutical products in France is now very active. Great efforts have been made by French manufacturers in this branch of commerce. In spite of the great difficulties surrounding the obtaining and manufacturing of raw products, the nation's output has been able to suffice not only for its nation's output has been able to suffice not only for its own demands for those pharmaceutical products that were made in France before the war, but has largely participated in the supplying of markets which received these goods from France in times of peace. The labour difficulty has been very great since the war broke out, and still remains so. It is one of the great causes of the limitation of the trade's development during the war. It would seem that if the military authorities had left, at the beginning of the war on larger scale than they did engineers and work. if the military authorities had left, at the beginning of the war, on a larger scale than they did, engineers and workmen at the disposal of manufacturing chemists to whom their services were necessary, and if they had not, at the same momentous period, deprived this industry of certain raw products requisitioned by the War Department and indispensable to manufacturers of pharmaccutical products, the French A.M.C. need not have bought at great cost important quantities of these products in Switzerland and the United States, and, further, the French manufacturing industry could have exported more, to the profit of the French Treasury.

As regards export, French chemical-manufacturers have

As regards export, French chemical-manufacturers have been hampered by export restrictions imposed by different Administrations, in many cases without enough discrimination or appropriateness. It may be said that, on the whole, the French chemical-pharmaceutical industry has developed during the war, but the trade has not been able to profit by circumstances, as a superficial survey might have induced one to believe it ought to have been able to do in a country like France, which before hostilities had a vigorous industry in chemical-pharmaceutical products, with experienced and

clever chemists.

-As is well known, the manufacture of chemical-pharma-ceutical products of mineral origin has always been highly developed in France. Before the war there was a considerable export trade existing in them. In the group of iodine salts of bismuth, mercury, lithium, etc., taken as a whole, the volume of business done by French houses in filling the wants of the Government and those of the civil population,

and in meeting foreign demands, has shown a decided in-crease. The same may be said of the mineral and organic products of the laboratory.

An interesting industry of which the war has shown the importance, and which is itself the essential basis of certain pharmaceutical manufactures, such as tinctures, and of those of photographic chemicals, has been created in all completeness during the last few months. This is the manufacture of bromine. As a matter of fact, it has been done entirely by the State for its own wants; but it is reasonable to antioipate that it will continue to exist after hostilities have ended, for it is incontestably important for a country that it should be a producer of a raw product like bromine.

The question arises, Will it be made at a price that will compete with German bromine? This is doubtful. But it

is probable that after the end of the war France will apply to this product a protective tariff, which will permit her factories to work remuneratively, so that in time of war she will not be again exposed to a shortage of this product.

she will not be again exposed to a shortage of this product. As to the centres of production of organic pharmaceutical products, those which existed in France before the war have continued to keep up their usual output, despite changed conditions. Such is the case with salicylates and antipyrin, with its derivatives. Further, the war has itself occasioned the setting-up of a number of manufactures, such a benzonaphthol, veronal, adalin, and products of a similar kind, which were imported formerly mainly from Germany. Pure which were imported formerly mainly from Germany. which were imported formerly, mainly from Germany. Pure lactic acid and valerianic acid are likewise made in France. A limited number only among the leading products of therapeutic chemistry can be here mentioned. It is not certain in any case that outside the salucylates and antipyrin and their derivatives, the other products of organic origin made in France have been regularly exported at this time.

made in France have been regularly exported at this time. The shortage of raw materials makes them suffice barely for the needs of the home market.

One remarkable success of the French manufacture of pharmaceutical products during the war has been the increasing on a large scale of the manufacture of arsenobenzol and its derivative. Before the war the French product was, in respect to quality, the equivalent at least of salvaran and necessivaran. But these dominated the product was, in respect to quality, the equivalent at least of salvarsan and neo-salvarsan. But these dominated the home market. Now French productiveness not only suffices for the nation's wants, but is able to export to all countries to which French goods can be sent. When the difficulties of making these bodies are remembered, and when it is realised that the French makers had themselves to manufactured by the transfer of the transfer of the second of the s facture all the substances necessary for their preparation, the magnitude of this industrial victory becomes apparent. As regards the manufacture of alkaloids and allied active principles during the war, except for cocaine, of which the output has increased for both exportation and home consumption, the national needs have absorbed nearly the whole production, notably that of digitalin and atropine. Theobromine, on the other hand, is being exported, while none has been imported. The alkaloids of opium have not been made in France since the war, and are imported from England, as is also caffeine, which is made in France also, but in quantities insufficient for the country's need. It should be noted that in the allied industry of photographic chemicals France continues to make metal, diamidophenol. paramidophenol, and glycin in quantities not only sufficient for her home needs, but to permit of her exporting them.

The business of the French "pharmaciens" is attended by inconveniences and disadvantages very similar to those which our own pharmacists have to work under. The dearth of assistants and the shortage and high prices of many of the goods they require make their calling a difficult one at the present time. The English chemists in Paris, in addition, are feeling the absence of many members of the British and American colonies and the cessation of the stream of visitors usually pouring through Paris. The custom of the British officers on leave or on temporary duty is not large enough to compensate for the loss of so much ordinary business. High prices with them are a great stumbling-block, and the terrible loss in the exchange when remitting money to England, which is now about 15 per cent., adds greatly to the difficulties of the situation. Nevertheless, both Roberts & Co., of the Rue de la Paix, and H. H. Swann, Rue Castiglione, seemed to be very busy. The presence of lady assistants and of the white-garbed male dispensers in the former establishment was the principal feature distinguishing it from the ordinary English chemist's shop. One of the principals, Mr. Jewell, told me that fresh difficulties had to be grappled with every day. The continuous rise in prices was the chief trouble, although the delay in the transit of goods from England and America was nearly as annoying.

Mr. John Jarvis, proprietor of the Pharmacie Swann, Rue de Castiglione, wears the uniform of the British Red Cross. He speaks the French language without any English accent, and this fact, coupled with his knowledge of pharmacy, made the Society eager to acquire his services at their Paris headquarters in the Avenue d'Iéna. As his time is almost entirely taken up by his duties here, the conduct of his business is peculiarly difficult, although he has able assistants, one of whom astonished me by speaking to customers of four different nationalities, including a Russian, in their own languages

in less than five minutes!

What it Costs to Run a Pharmacy.

By "National Efficiency."

THE practice of pharmacy on its technical and purely professional side has probably received quite its due share of attention from retail pharmacists since 1868. It is more doubtful, however, whether men in business have given the strictly commercial and economic side of pharmacy its proper share of attention and study. It may be quite true that a few exceptional men annually take stock and properly apportion their sales among the various departments or divisions of their businesses; it is certainly true that the vast majority of chemists and druggists do not. In this respect they resemble medical practitioners, although it may be safely said that the latter are worse business men than pharmacists. In large business concerns it is the constant practice of their owners to ascertain how each department pays-an analysis of the stock and of the sales is systematically made over and above the usual stocktaking and annual balance. In this way the owners come to know which of their departments pay and which are evidently run at a loss or on a small margin. The loose and slip-shod manner in which a large number of pharmacists conduct their businesses accounts for much of the want of success in business and want of recognition from which pharmacists as a class suffer. Again, when we find pharmacists comparing notes with one another, as often happens through the Press, too little weight is frequently given to the varying conditions of the craft throughout the country. A pharmacist, like a medical man and a lawyer, has to undergo an examination after a special training, and all pharmacists go through the same examination mill. But this does not mean that all pharmacists will be employed exactly in the same way. Some enter the drug-trade pure and simple—that is to say, they become manufacturers or wholesale distributors. These men, however, are in concerns which are usually managed on sound financial and economic lines. The majority become retail pharmacists, with businesses as varied as can possibly be imagined. Many, for instance, hardly ever, in the pre-Insurance days, dispensed a prescription. They simply sold drugs, and to-day they sell drugs—raw drugs and proprietary medicines of their own and other manu-They enter into side-lines unconnected, except by tradition, with pharmacy, and thus great variations occur in the nature and extent of a pharmacist's business.

There is at the present moment a great outery for efficiency in all branches of national life. This demand is a just demand, and pharmacists who are not at the Front should consider whether they will not perform a real service to the State by studying the nature of their businesses and the causes of variation, and by endeavouring to conduct their affairs on a proper commercial basis, thus knowing intimately, from an economic standpoint, every department of it. Had chemists and druggists possessed an intimate knowledge of the economics of their craft and of the varying conditions in practice, they would never have submitted to the treatment recently meted out to them by the National Health Insurance authorities. It is not too late even now to remedy this state of matters. National Insurance is only a fraction of a chemist's business, and it is mentioned here merely as illustrative of the disastrous results which follow a want of the application of business principles to phar-

It may be safely said that the average pharmacist knows his annual gross overturn, and whether it is inknows his annual gross overturn, and whether it is increasing or decreasing year by year. But docs he really know his net income year by year? No. He makes a guess at it by the roughest of processes, and could no more produce a balance-sheet of his affairs than he could fly. There are many notable and worthy exceptions to this rule. It should be the endeavour of the craft to bring about a radical change so that the rule above stated may be "more honoured in the breach than in the observance" of it. Every pharmacist in business ought

(1) The extent and nature of his stock. This ean be ascertained only by a proper annual stooktaking in which the various departments are considered separately.

the various departments are considered separately.

(2) The net annual revenue drawn from the purely professional department—namely, the dispensing of prescriptions. This necessitates (a) an inquiry into the annual cost of dispensed drugs; (b) the annual gross drawings from prescriptions as represented by the retail price; (c) the time taken to dispense the prescriptions; and (d) the annual cost to the pharmacist in getting the dispensing-work done, including remuneration to the principal should he dispense.

(3) The net annual revenue from the sale of crude drugs. This means an inquiry into the total annual sale of such

drugs, their cost and retail values.

(4) The net annual revenue derived from the sale of the pharmacist's own proprietary articles. An inquiry into the annual cost of material, the annual outlays in putting up the articles, and the amount realised by their sale would require to be conducted.

(5) The net annual revenue derived from the sale of other proprietary articles, arrived at by ascertaining the total cost price, total retail price, and the time (and thus the outlays) in selling the goods.

(6) The net annual revenue from each of the remaining departments, arrived at in a manner similar to (5) above.

(7) The annual outlays in wages to assistants, apprentices, clerks, labourers, etc. It happens occasionally that a pharmaeist has another and quite separate business over and above his ordinary business, such as, for instance, that of an aërated-water manufacturer. Of course such a business is kept separate, and is not confused with that of a retail pharmaey. retail pharmacy

(8) The annual outlays in rent, gas, taxes et hoc genus

From the results of the foregoing inquiry the pharmacist would be in a position to say which of all his departments paid best, and he would be able to judge, from a knowledge of circumstances, where to concentrate his attention, whether he should drop any sidelines, and whether it would be possible for him to develop any of his departments. All the foregoing postulates that he put the following question to himself when he commenced business, and that the question was answered in the affirmative: Is a business like this necessary in this neighbourhood?

The pharmacist who takes the pains to collate the foregoing information will possess many advantages over the pharmacist who does not. The methods by which the pharmacist can carry out the above analysis of his business are various. Too much space would be required to detail them, but the serious and keen man would be wise to take the advice of an accountant, who would be able to instruct him on the best method of keeping his business books day by day, so as to permit of the analysis herein desiderated being performed at the end of each year.

The best business balance-sheet should contain a statement of the receipts from the following sources:

INCOME.

- Sale of drugs.
 Sale of own proprietaries.
- Sale of other proprietaries.
- Sale of perfumery and toilet-preparations. Sale of photographic material. Sale of aërated waters.
- Sale of veterinary medicines.
- 8. Sale of other classes of goods.
- 9. Dispensing-fees.

The following classes of outlays should be noted on the expenditure side:

EXPENDITURE.

- (a) Cost of Material.

 1. Drugs dispensed and sold otherwise.
- 2. Proprietary medicines.
- 3. Perfumery.
- 4. Photographie material.
- 5. Aërated waters.
- Veterinary medicines.
- 7. Other classes of goods.

(b) Establishment Outlays.

8. Rent, gas, taxes, etc.

9. Wages-assistants and other servants, with proportions allocated to each department.

10: Wages—clerks, etc.

11. Amount set aside as interest on capital.

A knowledge as to how the pharmacist stands, without the above details, can easily be determined, provided stock is annually taken. We can then have a statement drawn up as follows:

BALANCE SHEET.

£ s. d. Stock in hand 1st January, 1917 Total drawings for the

£ s. d. Stock in hand 31stDecember, 1917 ... Payments for drugs, etc., bought during the year Rent, gas, taxes, etc. Other establishment outlays Interest on capital Salary of principal Balance

Suppose, for the sake of simplicity, that the amount of stock was practically the same at the end of the year as at the beginning of the year. Then the balance, if any, would represent a real surplus, and the pharmacist would be able to judge whether his "salary" should be increased, or whether the sum should be placed to a "reserve" fund, which is the usual proceeding.

The total amount of establishment-expenses is a very important factor in business. A knowledge of even the average expenses would have been invaluable to the craft during the recent inquiry which took place on Insurance dispensing. So varied is the nature of a Insurance dispensing. So varied is the nature of a pharmacist's business that what is the experience of one man cannot be accepted as the likely experience of another. Some businesses are cheaply run. If the annual cost of drugs and proprietaries be taken as a common basis of comparison, certain businesses would have an annual establishment outlay of less than 10 per cent. of the total annual cost of material sold. Certain other businesses show the other extreme—namely, as much is spent in establishment outlays, as is paid out annually for cost of goods sold. For instance, if 7001. represents the sum paid out to wholesale houses for goods during the year, practically the same amount is spent in estab-These are lishment outlays during the same period. exceptional cases, due to peculiarities in the areas concerned. It is to be deplored that pharmacists generally do not inquire into the reasons for the great differences in the outlays necessary to be expended in running a business. Many know in a general way that it takes

Observations by Jay Mack.

We submitted a proof of the foregoing to Jay Mack, who commends it as "excellent but too ideal for the retailer in a working-class business." He comments upon it as

It is not merely efficiency but a question of Business v. Bankruptcy. I have always said that you can get all the figures you need with quite simple methods and in ten minutes' work per week. The man who can run a small drug-business (up to 2,000l. a year), in which he is the manager and active head, dispenser, window-dresser, stockkeeper, and clerk, cannot make his profits what they ought to be, and spare time to collect claborate statistics as

keeper, and clerk, cannot make his profits what they ought to be, and spare time to collect elaborate statistics as well—because the public will not let him.

A touch of genius is needed to succeed in the retail drug-business to-day. You must have a sixth sense, and be able to tell the needs of your district and the departments which will pay you to start or continue. Garden seeds, electric lamps, photographic and optical goods, and stationery were lying around in heaps in every shop that ever I looked at. They all pay well if you buy the kind which your district will buy, but if you buy what will pay you best, or what you want the public to buy, then you will get left, and you deserve it.

National Insurance dispensing is just the same: 20 per

will get left, and you descrve it.

National Insurance dispensing is just the same; 20 per cent of hard-up men thought it was a godsend. Even in 1914 the Blackpool Association unanimously said it would not pay for qualified labour. What about the year 1916, then? And the tall tales from Lecds? In 1912 I warned the trade about N.H.I. dispensing being contract-work at a poor price; but no warnings and no figures will ever teach the ordinary druggist. What he wants is to listen for ever to hot-air artists, who tell him that if he would only combine he might become a professional man. We all combined in 1915 to stop "Rept. mist." in this country, and we got snubbed for our pains. Pig-headed prejudice kept druggists from adopting stock mixtures—the only way and we got snubbed for our pains. Pig-neaded prejudice kept druggists from adopting stock mixtures—the only way to make Insurance work pay at all; in fact, it is the right and proper way for all dispensing to do away with waste and errors, and every hospital does it, and so does every high-class pharmacy, simply because the doctors are ordering proprietary-branded preparations. The wrong class of men are on our Council.

men are on our Council.

I can follow out all of the ideas of "National Efficiency" on very simple lines, which any single-handed druggist can easily do also if he has the trading gift. Stocktaking in detail is sheer murder in the retail drug-trade, and can easily be estimated to within 10l. or 20l. if your stock is well kept and if you keep a private ledger which shows you the essential figures (see table across page), from which you can form a balance-sheet in half an hour.

I am too busy to separate my Insurance-dispensing drugs from other drugs—in fact, it cannot be done by anybody, because heaps of things, like spt. am. ar., tr. rhei, tr. opii, pil. coloc. co., ung. boric., and ung. zinci, are used in dispensing and in ordinary retail, and you can only estimate roughly. But it is quite easy to find from your ordinary

	Cash		Goods	Working	Own	-	Deht	Debt	Real Estab. of Takings	Charge, % & N.H.I.
Year	Taken	N.H.I.	Bought	Expenses	Wages	Stock	on Stock	due to me	Without my Wages	With my Wages
1912 1913 1914 1916	£ 1,200 1,200 1,200 1,400	£ 370 420 270	£ 700 800 1,000 1,000	£ 200 230 250 280	£ 150 150 153 150	£ 330 360 450 500	£ 150 200 350 350	50 100 250 300 (N.H.I.)	1°% 15% 15% 16%	30% 25% 25% 20%
	A	В'	1	2	3	C	D .	- Е	F	G

A, B.—Any good cash-book will give you this.
C.—By estimation from the figures of previous detailed stock-

about 20 per cent. of the turnover to run a business. It is also known that outlays depend very largely on the nature of the business, the site of the pharmacy, and the individual tastes and ambitions of the particular proprietor. Pharmacists would do inestimable service to the profession and business of pharmacy if they succeeded in carrying out a systematic inquiry into their businesses. If each man knew how he stood year by year he would be in a better position to negotiate, say, with Insurance authorities, and the pressure of competition would be daily noted and provided for

duly noted and provided for.

D. E.—At year's end. F. G.—Too cold to work them out any closer. 1, 2, 3.—Use a modern ledger.

N.H.I. records which you keep before despatching to checking office, or which you get from them, the essential figures, are given below:

Year	Recipes Dispensed	Valued at after checking
1913 1914 1915 1916	10,000 11,000 10,000 10,000	£ 370 420 330 270

The Manufacture of Adalin.

Before the Comptroller-General (Mr. W. Temple Franks) and Sir Cornelius Dalton at the Patent Office Court on January 18, Mr. T. McKenna, on behalf of Boots, Ltd., January 18, Mr. T. McKenna, on behalf of Boots, Ltd., made an application for the avoidance of patent 2888/10, "Manufacture and Production of a new Pharmaceutical Product," and of trade-mark 525,352 ("Adalin"). At the commencement of the proceedings, Mr. Johnson, who said he appeared at the suggestion of the Board of Trade, stated that the patent was taken out by the Farbenfabriken vormals Friedrich Bayer & Co. Elberfeld, but assigned to the Mersey Chemical Co., which company is now being carried on by a controller under an order of the Board of Trade. The controller, it was further stated, had granted carried on by a controller under an order of the Board of Trade. The controller, it was further stated, had granted to Dr. F. W. Passmore a licence to use the patent. He (Mr. Johnson) was informed that the licensee had never worked the patent, but the licence is still in existence. This the solicitor of the Board of Trade considers will create a difficulty until the licence is got rid of.

The Comptroller: I think we must hear the applicants' case. It may be that the action of the controller or the Board of Trade has been taken under a misconcention.

Board of Trade has been taken under a misconception. After hearing the evidence, the Patent Office will be in a position to advise the Board of Trade as to whether the licence already granted is a complete bar to these proceed-

ings or a reason for granting another licence.

ings or a reason for granting another licence.

Mr. McKenna: I hope you will note that the Board of Trade admits that Dr. Passmore has not exercised the power given him under the licence. Mr. McKenna then gave the facts regarding the patent. It was assigned in 1911 to the Mersey Chemical Co., Ltd., which is an off-shoot of the German Bayer Co., Ltd., another branch or selling company (see C. & D., December 2, 1916, p. 34). Whether the Mersey Chemical Co. has ever made the article is not known, but Mr. McKenna said his impression is that adalin was made in Germany and but on the market here by the English Bayer Co. The patent specification, continued Mr. McKenna, refers to this pharmaccutical product as "the present invention concerns the preduction of the hitherto unknown diethylbromoacetyl-urea, etc." When as "the present invention concerns the production of the hitherto unknown diethylbromoacetyl-urea, etc." When this new product was put on the market it was called adalin. Further, Mr. McKenna handed to the Comptroller printed matter issued by the Bayer Co., which established the identity of adalin with the product mentioned in the patent. It is impracticable to use the chemical name, and, patent. It is impracticable to use the chemical name, and, so far as he is aware, no other name than adalin has been applied in practice to the substance. Adalin is not sold to the public, but is ordered by doctors. It is important that it should be made, as the supply has ceased and it is now practically unobtainable. It is used as a substitute for veronal, and has none of the drawbacks of the latter drug. Boots, Ltd. had had many demands for the substance, and Mr. F. H. Carr had endeavoured to make it by methods not covered by the patent, but had failed; hence it was necessary to ask for the avoidance of the patent or alternately for a licence to employ it. Mr. Carr had made a few pounds by the methods given in the specification, and this had been tested chemically and physiologically and found to be identical with the German product. Mr. McKenna then went on to consider the licence to Dr. Chemical Co. This took place in June 1915, and, said Mr. McKenna. "I think he acted rather outside his powers."

unless he had the express authority of the Board of Trade."
Mr. Johnson: It was granted by order of the Court.
The only reason why Dr. Passmore wanted the licence was

to make money out of it.

The Comptroller remarked that the licence purported to

be an exclusive licence.

Mr. McKenna: It is one of the most extraordinary documents I have ever seen. Continuing, he said Dr. Passmore is not a manufacturer; he was consulting chemist for the Bayer Co. and in that capacity appeared for the company in the salvarsan case. The document purports to grant a "sole exclusive licence during all the term of this war and for six months after." There is no consideration shown and nothing undertaken by the licensee. All it says is that if Dr. Passmore manufactures the article he will "sell and deliver." it to the controller of the Mersey Chemical Co. only at a price agreed upon, which is to be not less than 5s. per oz., the company to pay Dr. Passmore 1007, for a minimum quantity. No company would give its patent away to anybody who did not undertake to manufacture the article. This is simply arranged to block the patent. If it was entered into with the sanction of the Court the full facts could not have been before the Court.

Mr. Johnson: The licence was schedul d with the order. ments I have ever seen. Continuing, he said Dr. Pass-

Mr. Johnson: The licence was schedul d with the order.

The Comptroller: One knows how these things are done;

it would go through as a matter of course.

Mr. McKenna: The Mersey Chemical Co. was being wound up at the time, and the controller's business is to wind up the company, not continue to carry it on. The patent has not been sold, but the result of the licence is to make it perfectly worthless and to give something for nothing to Dr. Passomre.

Johnson: Dr. Erhardt, the manager of the Mersey Chemical Co., reported that the licence would be for the benefit of the company and the general public.

Mr. McKenna further developed the point that the duty of a controller was to wind up the company, and added that if the licence is felt to be a bar to the present application, he would remind the Court that the Board of Trade

has the power to suspend licences.

The Comptroller: We have always understood that the Temporary Rules Act gives the Board of Trade full powers, in spite of any existing licence, to act for the benefit of the

community in general.

Mr. McKenna: Dr. Passmore has not made the product at all, and even if he did he could not sell it as adalin, because that trade-mark belongs to the Bayer Co. Mr. McKenna then briefly recapitulated the reasons why the trade-mark is required (see C. & D., December 2, 1916,

p. 34).
The Comptroller: The clear rule regarding trade-marks is that if they can be shown to be the name of a patented is that if they can be shown to be the name of a patented is that if they can be strained, recommended the grant of article we have unhesitatingly recommended the grant of the trade-mark to the licensee of a patent. "I hope," he added, "that this mark will be swept off the register when the patent has expired."

Mr. Johnson: The name is not restricted to this particular

patent.

Mr. P. A. Newton: The trade-mark was not registered until some months after the patent had been granted.

The Comptroller: It has been a source of profit to manufacture the comptroller of the comptroller.

The Comptroller: It has been a source of profit to maintacturers to continue a trade-mark after the patent has expired, because nobody will take the trouble to combat it.

Mr. McKenna contended that he had established completely the identification of the patented product with the name "adalin."

Mr. F. H. Carr then gave evidence confirming the statements of Mr. McKenna. Sir Jesse Boot, he said, built a large chemical laboratory with the object of making chemicals not previously manufactured in this country, and since large chemical laboratory with the object of making enemicals not previously manufactured in this country, and since the beginning of the war chemists had been at work attacking problems of manufacture. Professor F. S. Kipping had tried to make adalin by methods outside the patent, but could only do this by very expensive processes.

In reply to Sir Cornelius Dalton, Mr. Carr said the price of additional forms of the process.

of adalin was 5s, to 5s, 6d, per oz, before the war. The price would be higher now owing to the increased cost of

bromine and alcohol.

Sir Cornelius Dalton: What royalty would you be prepared to pay?

Mr. McKenna: I suggest that this should be 21 per cent. on the selling price.

In reply to other questions, Mr. Carr said the price would be about 9s, to 10s, per oz.. and the laboratories could meet a demand of 40 lb, to 50 lb, a week. It would be sold to other drug-houses as well as be employed in the Boots

The Comptroller: Apart from the somewhat feature of the licence the case is very clear. I have no doubt the Board of Trade has power to revoke licences and act in two capacities. All the facts will be put before the Board of Trade.

CHAMBERS OF COMMERCE.—In commercial and Parliamentary circles there is an expectation that the Government will shortly do something to increase the usefulness and importance of the Chambers of Commerce throughout the country. At the moment all these bodies can do is to attempt to further the interests of trade by making representations by way of petitions or deputations to the Govern-ment, but they are possessed of no official status, and in many of the provincial Chambers there is much unnccessary many of the provincial Chambers there is much unnecessary delay owing to the fact that the officials only give partime service. It is felt that if the Government were to step in at this important juncture the first act would be to house the Association of Chambers of Commerce in some central building in the metropolis worthy of its importance and standing, and the next to give an official status to these bodies in place of the purely voluntary effort which has hitherto existed. The first Chamber to be started in Britain was the Glasgow in 1783, and this was followed two years later by one at Edinburgh. It was not until 1820 that a Chamber was established at Manchester; Hulf followed in 1837. Bradford, Liverpool, and Leeds in 1850, and London in 1881. and London in 1881.

The Apothecaries of the City of Dublin.

Dr. J. C. McWalter, Dublin, published recently a "History of the Worshipful Company of Apo hecaries of the City of Dublin," in which he has collected much information regarding this guild which has not hitherto been available to the public. In the following extracts from this work we confine ourselves mainly to those matters which have a pharmaceutical bearing.

WE may usefully preface this article by quoting the W definition of apothecary as given in the "English Dictionary on Historical Principles," edited by Sir James A. H. Murray:

"The earlier name for: One who prepared and sold drugs for medicinal purposes—the business now (since about 1800) conducted by a druggist or pharmaceutical chemist. From about 1700 apothecaries generally took a place as general medical practitioners, and the modern apothecary holds this status legally by examination and licence of the Apothecaries' Company; but in popular usage the term is archaic."

It may be recalled that the London apothecaries were first incorporated along with the grocers in 1606, and remained so united until 1617, when a new Charter was received which formed them into a separate Company under the designation of the Master, Wardens, and Society of the Art and Mystery of the Apothecaries of the City of London.' It is quite clear from the Charter that the London apothecaries at first only dispensed medicine, but from the beginning the aims of the apothecaries were directed to receiving recognition as pre-scribers. It is commonly understood that the Plague of London (1665) provided the apothecaries with their first foothold within the precincts of the medical professionthe fashionable and wealthy physicians precipitately fled to the country, leaving the apothecaries to do their best to combat the ravages of the plague epidemic. Full recognition was then only a matter of waiting for opportunities, which the apothecaries were not backward in

McWalter mentions that the first Dublin apothecary of whom we have any record came over with Henry II., and the claim he advanced for a royal grant was that the Irish did not appreciate or purchase his drugs. One of the strongest Guilds of the City of Dublin in 1484 was that of St. Mary Magdalene, which appears to have included barbers, surgeous, apothecaries, and periwig-makers-at least, all these were mentioned in the early Charters. This early association is interesting in view of the fact that the London apothecaries were from the commencement associated with grocers. The Dublin apothecaries in time broke their connection with the barbers and periwig-makers, the "Worshipful Corporation called Master, Wardens, and Commonalty of the Art and Mystery of the Apothecaries of the City of Dublin" being incorporated by royal Charter in 1745. Dr. Charles Lucas, the Irish patriot, whose statue is in the City Hall, was also a most active apothecary, and it was mainly due to his efforts that the apothecaries obtained an Act of the Irish Parliament in 1791 enabling them to establish an Apothecaries' Hall, although Dr. Lucas died before this was accomplished.

There was, it appears, a Pharmaceutical Society in existence in Dublin in the eighteenth century, as a petition from this body was considered in 1784 regarding the charges for medicines. This was a private body which coalesced with the Apothecaries' Society in 1791, the establishment of the Hall providing a laboratory for undertaking chemical research. The courses of lectures which were provided at the Hall included one on chemistry. Dr. McWalter prints in full the Charter of the Apothecaries. Among the chemists connected with the Hall were George Kiernan, W. Higgins, and Michael Donovan (still kept in mind by Donovan's solution); while Sir Robert Kane, probably the greatest Irish chemist, was admitted an apothecary in 1828, and afterwards became the professor of chemistry in the Apothecaries' Medical School. Some objection was taken apparently to the trading side of the Apothecaries' Hall, and Donovan seems in 1838 to have had a scheme for the foundation - of a College of Pharmacy, but he could not prevail upon the Apothecaries to help in this.

Donovan was one of the leading scientific men of his day in Dublin. He founded and edited a journal called the "Annals of Materia Medica and Pharmacy," in which he severely rated the directors of the Apothecaries' Hall. Dr. McWalter adds: "Donovan was a fine fighter"what higher testimony could an Irishman give to his worth?

A large part of the "History" is taken up with the struggles which, in common with their London brethren, the Dublin apothecaries had with other medical bodies. The impression is given, however, that the Dublin apothecaries from their initial advantageous position did not go through quite the same acrimonious phases as fell to the lot of the London apothecaries. The difference is due, no doubt, to the fact that the surgeons and apothecaries had always from the first been in closer association in Ireland than in England. The physicians, however, gave a lot of trouble, as they claimed jurisdiction over the apothecaries, and, moreover, desired to have the exclusive right of inspecting drug-shops. The physicians in 1735 obtained the power of inspection, and the same Act forbade the sale of certain poisons, such as arsenic and corrosive sublimate, except to the order of physicians. It also made provision whereby poisons or drugs, and articles of food or paints, were not to be stored or sold together. In writing prescriptions the physician was required to sign his name in full and give his medical qualification, and he was compelled to write in words the quantity of any dangerous drug. The present position of the Apothecaries' Hall is thus summarised at the end of the "History":

"The Medical Act of 1858 recognised the Dublin Apothecaries' Hall—the old Guild of Apothecaries of the City of Dublin—as a Medical Licensing Corporation, empowered to grant diplomas to practise medicine. The same privilege was also conferred on the London Apothecaries' Hall. In old-time charters the term 'Hall' has the same meaning old-time charters the term 'Hall' has the same meaning as 'College.' The assemblage of the members of the Guild in their meeting-room was called a 'Full Hall,' and the buildings dedicated to this purpose in London. Edinburgh, and Dublin were long known as 'Surgeons' Hall,' 'Physicians' Hall,' and 'Apothecaries' Hall.' Now the word 'College' is often applied to the actual building, though, of course, it properly means that corporation of learned persons who assemble there.

At one time these two hodies the College of Surgeons

of course, it properly means that corporation of learned persons who assemble there.

At one time these two bodies, the College of Surgeons and the Apothecarics' Hall, united to give a conjoint diploma in medicine, surgery, and pharmacy. The Royal College of Physicians questioned the power of the Apothecaries' Hall to confer a licence in medicine, and an injunction was taken to prevent it entering into conjunction with the Royal College of Surgeons for the purpose. The case was heard before the Vice-Chancellor, who decided that the licence conferred by the Apothecaries' Hall, and recognised under the Medical Act of 1858, was a licence in medicine. It is also noteworthy that the Medical Acts contain a special section safeguarding the rights of apothecaries in Ireland. The agreement with the College of Surgeons having terminated, the Apothecaries' Hall applied to the General Medical Council to appoint assistant examiners in surgery in order to enable it to confer a full qualification, registrable under the Medical Act of 1836, in medicine, surgery, and pharmacy. Those assistant examiners having been appointed, the curious state of affairs which now exists is that the certificate of this Hall, the lineal descendant of the old Dublin Guild, is a complete qualification in medicine, surgery, midwifery, and pharmacy. On the other hand, the licence of the Royal College of Physicians in

the old Dublin Guild, is a complete qualification in medicine, surgery, midwifery, and pharmacy. On the other hand, the licence of the Royal College of Physicians in Ireland, by itself, is not now recognised as a complete qualification in medicine and surgery. Neither is the Letters Testimonial of the Royal College of Surgeons, although the two diplomas, taken conjointly, do constitute such a qualification. It further happens that not even the M.D. degree of Dublin or Belfast Universities, or of the National University, confers the same amount of privileges to practise, because those degrees do not qualify the holder to practise pharmacy." to practise pharmacy.'



N every Winter and Summer Issue of The Chemist AND DRUGGIST we have reserved certain space for the insertion of circulars, price-lists, and cognate matters prepared by business houses connected with the trade, these being printed by them. These publications are known as Insets, and many which have been inserted in The Chemist and Druggist have been of historic interest. We remember, for example, the occasion when an old business which was known in British pharmacy chiefly on account of its retail connection, suddenly became known throughout the British Empire as being also a manufacturing and wholesale business, owing to the fact that the firm's wholesale price-list was distributed through a Summer Number of The Chemist and DRUGGIST as an Inset. This at once established a business connection which had already commenced chiefly with friends of the business, and during the decades that have elapsed the business has grown from more to more. This exemplifies the potentiality of advertising in this manner, but there are many points which also predominate with C. & D. Insets. We submit that the primary effective factor in respect to the insertion of circulars and price-lists in The Chemist and Druggist is that buyers throughout the world realise that such Insets enable them to buy under the best possible con-We may also note that such Insets are only included in our Winter and Summer Issues, or twice yearly, and this is greatly to the advantage of this method of advertising, especially as the Insets are received and studied by buyers of the goods at the seasons of the year when it is an advantage for them Another distinction obtainable from such Insets is that the advertisers are enabled to adopt distinctive methods of printing which are serviceable in the promotion of business. We are enabled on this occasion, in motion of business. We are enabled on this occasion, in spite of the restrictions which are placed upon all printing on paper, to submit to C. & D. readers at home and abroad a number of Insets which we feel sure they will peruse with advantage, for they embody novel ideas, and each is worth attention. We append notes in respect to each of the Insets, indicating at the end of each note where the Inset is placed in this issue of the C. & D.

Allen & Hanburys, Ltd.,

London, include in their illustrated inset views in their analytical laboratories and packing-rooms, Bethnal Green, E., and of a lavender-field, currant-plantation, pastille-room, and soap department at Ware Mills. The inset thus covers the non-liable Packed Drugs and Pharmaceuticals, superfatted Toilet-soaps, the Allenburys Jujubes and Pastilles, and Toilet-preparations. Illustrations of many of the products as they are put up for retail are given, along with particulars as to contents with the prices, so that our readers at home and abroad can order straight from this inset, having the knowledge that they get the goods from the actual manufacturers. (Pp. 32-33.)

H. Bronnley & Co, Ltd.,

Acton Vale, London, W., are the firm who have specialised in the manufacture of toilet-soaps, and as an accessory to this they have earned for themselves a name of high repute in respect to the manufacture of perfumes. The first page of the inset that they insert in this issue is devoted to their eau-decologne and to their "Sea Breezes" head cologne. The former is put up in plain 2-oz., 4-oz., and 8-oz. bottles, as well as in wickered quarter-pint, half-pint, and one-pint bottles. The wholesale and retail prices for each size are quoted, as well as the wholesale and retail prices

for the "Sea Breezes" head cologue. The manufacturers also supply the perfumes in bond, and our Colonial and foreign subscribers should write to them for prices in that condition. The page of the inset devoted to Brannley's soaps speaks for itself, illustrations and prices being given for scarlet geranium, Mitcham lavender, and Albu-Myl verbena soaps put up in boxes of three tablets, while Bronnley's "Bathodomes" in six distinct odours are quoted at 58s. per gross packed in boxes of six. (Pp. 128-129.)

Brunner, Mond & Co., Ltd.,

Northwich, Cheshire, many years ago made the Crescent brand of sodium bicarbonate a sure thing for the production of carbonic-acid gas in the manufacture of aërated waters. It will be remembered that the late Dr. Ludwig Mond, along with Sir John Brunner, Bart., established in this country the manufacture of sodium bicarbonate and other soda products by the Solvay process, and there is no more interesting chapter of chemical technology than that which covers the period of Brunner-Mond work in perfecting the processes which made the ammonia-soda process a commercial success. One indication of that success is the fact that mineral-water manufacturers get for a postal order for 9s. 6d. a 2-cwt. bag of the sodium bicarbonate fo.b., and Brunner, Mond & Co., Ltd., in their circular give full instructions in regard to the use of the bicarbonate for producing carbonic-acid gas. The method can be used in any part of the world as the sodium bicarbonate does not deteriorate by exportation, and is, in fact, much used in tropical climates. (Pp. 64-65.)

W. J. Bush & Co., Itd,

Ash Grove, Hackney, London, N.E., are well known the world over as manufacturers of soluble essences required in the production of aerated beverages. As original makers of a soluble lemon their No. 1 "Bush" well deserves the prominence that it has on the first page of their inset, but they also mention on the reverse three other essences which rival Sol. Lemon No. 1 in efficacy and popularity. They are Ess. Lime juice and Soda, Ess. Dry Ginger-ale, and Ess. Stone Ginger-beer. As already indicated "Bush" products are numerous, and the company keeps pace with the progress of popular taste in matters of this nature. (Pp. 32-33.)

Clayton & Jowett, Ltd.,

Liverpool, insert in our foreign copies of this Winter Issue a beautifully printed circular dealing with their essences for the manufacture of certain aërated beverages, which essences are produced under the control of their managing director, Mr. J. W. Clayton, Ph.C., F.C.S. The "Gold Seal" brand of soluble essence of lemon is the subject depicted on the first page of the inset, a clump of lemons, leaf, flower, and fruit, being placed over the scarlet band with the gold seal characteristic of this production. The "Gold Seal" tonic, combining the characteristic of phosphorus, fruit, and iron in an essence which makes a beverage tonic to bone, nerve, and brain, is described, and it is interesting to note that this produces a sure "corpse-reviver."

R. W. Greeff & Co.,

Thames House, Queen Street Place, London, E.C., invite attention to a page inset of their Bridge brand of pharmaceuticals and photographic products, the enumerated list of which contains over fifty selected items of those mostly in demand. These products, which are offered at the lowest prices in wholesale quan-

tities only, are manufactured in the United Kingdom, Allied and Neutral countries. A feature of the inset is a representation of the new Southwark Bridge in sepia and a vignette of the firm's offices at Thames House. (Pp. 32-33.)

Holoyd Advertising Service,

Birmingham, is the system of advertising for pharmacists and retail druggists that has been devised by Mr. H. O. Lloyd, M.P.S., and which he is carrying on with remarkable success on a co-operative monthly basis. The best ideas in advertising are expensive, and can only be adopted for national purposes, or similar wide objects that reduce the ratio of cost so that the expense is small for each locality. This the "Holoyd' system does by producing exceptionally good." Monthly Jottings," and making each issue suitable for each individual retailer. Specimens of this monthly are shown on one side of the H. A. S. inset, and business particulars and prices are given on the front page. (Pp. 128-129.)

Johnson & Johnson,

New Brunswick, N. J., insert through their British representatives, John Timpson & Co., Ltd., 104 Golden Lane, London, E.C., a circular regarding their Antiseptic Baby Powder, which has a distinctive package that is illustrated in facsimile, because the originators of the preparation find that the package is being imitated. As a result those people who get the imitation package are seriously disappointed with its contents, and the object of the inset is to place before our readers the points of distinction that have made this Antiseptic Baby Powder a favourite. Of course, the reasons which have given it so prominent a place in the nursery also ensure that it is serviceable and satisfactory as a toilet-powder. (Pp. 32-33.)

McKesson & Robbins (Incorporated),

manufacturing chemists, New York, U.S.A., insert a four-page inset devoted to their capsuled McK. & R., pills etc., made according to formulæ of the British Pharmacopœia and other standard authorities. The inset gives a selection of the principal formulæ, a complete list of which can be had on application. S. Maw, Son & Sons are agents in this country for the pills; and the British depot for Calox, the oxygen tooth-powder, to which the fourth page of the inset is devoted, is with G. B. Kent & Sons, Ltd., 75 Farringdon Road, London, E.C. American crude drugs and essential oils have always been a special branch of the McK. & R. business, and the firm solicit inquiries for jalap, senega, hydrastis, sarsaparilla, balsam peru, balsam copaiba, sandalwood oil, peppermint oil, etc. The firm are also sole export agents for the New York Quinine and Chemical Works, Ltd., makers of quinine, morphine, codeine, acetanilide, etc. (Pp. 32-33.)

Postlip Mills

are manufacturers of filtering-papers which have been examined and tested by the National Physical Laboratory, Teddington, and the interior of their inset contains the verbatim report signed by Mr. R. T. Glazebrook, Director of the Laboratory. Samples of the papers are placed outside the inset, those for chemical laboratories being at the front, and the samples of white and grey filtering-papers specially suitable for pharmaceutical purposes are placed at the back. It will be noted that the papers are obtainable in all sizes from two to twenty-two inches in diameter. We expect that all our readers will test these papers for themselves, and when they want supplies they have only to order through their wholesale houses. (Pp. 64-65.)

Service Manufacturing Co.,

2 Park Road, Liverpool, are the manufacturers of Kennedy's Kill-Lice Belts, and their inset conveys to each of our readers a specimen of the effective handbill that is issued to retailers of the belt, which the company supply at 12s. per dozen, giving with

an order for three dozen a quarter-dozen belts as bonus, besides a window-poster and the leaflet that we have referred to. (Pp. 128-129.)

Stevenson & Howell, Ltd.,

Standard Works, Southwark Street, London, S.E., are the manufacturers of the "Dulciflor" brand of synthetic floral ottos, and they have devoted one of their artistic and charmingly printed insets to a specification of the individual products and the purposes for which they are used—e.g., in perfuming toilet-preparations of all kinds, toilet soaps, dentifrices, and even in the compounding of perfumes. These synthetic products are manufactured in the Standard Works Laboratories, so that Stevenson & Howell know exactly what the ottos are suitable for, are thus able to advise manufacturers of perfumery, or any preparations containing them, whether or not any particular mixture will give the expected result. We commend this point to buyérs, and as a preliminary suggest that our readers should write to Stevenson & Howell for their explanatory brochure on the ottos. The second inset deals pictorially and convincingly with the merits of the "Perfect" soluble essence of lemons and soluble essences of sweet oranges. (Pp. 64-65.)

Longevity of Soap-bubbles.

At the Royal Institution on January 19, Professor Sir James Dewar gave a lecture on "The Longevity of Soap-bubbles." In introducing the subject he referred to the lecture delivered by him a year ago, and he showed a film made on January 21, 1916, which is exactly the same as it was then, having been kept in perfectly pure air. He gave an interesting account of Plateau, the Belgian professor, who was the first to make a study of soap-bubbles. Born in 1801, he became through an accident totally blind in 1842. He had commenced the study of soap-bubbles in 1841, and he continued it all his life. He lived till he was nearly eighty, and all these years he was studying the properties of bubbles. Sir James Dewar remembered him quite well Dewar gave a lecture on "The Longevity of Soap-bubbles. of bubbles. Sir James Dewar remembered him quite well being taken about the streets by a boy when he was himself studying in Belgium. Having shown by experiment the effect of purified air on a beam of light by Tyndall's method of consuming the carbon and organic matter in the air by means of heat, he went on to say that since Tyndall's time the method of counting air-particles had been perfected, mentioning incidentally that every c.c. of air in the room in which he was lecturing contained 100,000 particles. Several methods of removing particles from the air were illustrated by experiment, the most striking of which was the deposition of carbon from a smoky atmosphere by means of electric discharge. Plateau made his soap-solution from Marseilles soap, which was then made from pure olive oil. Ho used a 2-per-cent. solution, and to this he added 30 per cent. of glycerin, a solution which gave the best stability. The drainage from soap-bubbles was analysed by iodine-absorption, or in the case of ammonia by Nessler's reagent, both processes being shown on the screen. The stability of bubbles is enormously increased by removing all suspended particles from the air. Everything that wears goes into the air, animal and vegetable refuse, detritus of every description, and these must all be removed if the film is to remain intact. The process of blowing bubbles was then shown practically, and the method of removing the drops. It looked simple, he explained, but it is extremely difficult. The fact that the film resisted the action of the drops proved that though only 1-100,000th of a millimetre in thickness, this very thin thing is very strong. In the course of the experiments several of the bubbles collapsed, the lecturer explain-

ing that vibration was the great enemy of soap-bubbles. At the end of the lecture Sir James Dewar said it was questionable whether the laboratories of the Royal Institution were likely to continue its existence. The Institution had sacrificed nearly all its assistants, and of the two who remained one had within the last few days been called up. Both these men are married and close on forty. If the present demand for technical education is going to submerge the oultivation of pure science, and if the laurel wreath is to be awarded only for that which makes for utility, no great nation can live. He recalled Faraday's reply to the Prince Consort when the latter asked what is the use of the discovery of the effect of a magnet on a coil of iron wire, "I shall tell you the use if you can tell me the use of a



MEDICATED LOZENGES.

Thomas Guest & Co., Ltd., medicated-lozenge makers, An-Thomas Guest & Co., Lt3., medicated-lozenge makers, Ancoats, Manchester, have made additions to their series of lozenges packed in 6d. tins. Those now introduced are new bronchial lozenges, iodised throat-tablets, and bismuthated magnesia lozenges. We have seen the style of package in which these are packed, and consider that they make a useful 6d. line for sale by chemists. The lozenges referred to are "known, admitted, and approved" remedies which can be sold by chemists from the fact that a declaration of the composition is made on the tins. of the composition is made on the tins.

DUCHESS TOILET-SOAPS.

The Erasmic Co., Ltd., Warrington, send us samples of the "Duchess" series of toilet-soaps which are well known as a special manufacture of the company. The soaps are packed in boxes of half-a-dozen, the varicties in each box being assorted. The tablets are of a nice oval shape convenient to hold, and there is no difficulty in producing with the coap a good lather. The perfume of the soap, which is with some people the only test of quality, is, in all the varieties, free from coarseness. The soaps are referred to in the advertisement of the Erasmic Co. in this issue.

VILJOEN'S MEDICINE-CHEST.

The death of Ben Viljoen, one of the Boer Generals, and at one time second in command to General Botha, is a reminder, write Burroughs Wellcome & Co., that he also is one of the famous men in history who have experienced the value of a "tabloid" medical outfit. The case here illustrated was presented to the Boer soldier before the



commencement of the South African War by an English medical officer. During the whole of the campaign, from Elandslaagte, where he was first engaged with the British until he was wounded and captured near Lydenburg, Viljoen carried this case in his pocket, and he attributes the saving of his life to its presence there. After his release from St. Helena he visited England, and during his stay presented the case to Burroughs Wellcome & Co., sending with it the following signed report:

"The accompanying pocket medicine-case I carried in my pocket for nearly three years during the late war, and found it exceedingly useful and handy. You may have it back as a memento. To me it was, and still is, a dear friend. It came originally from your firm."

SHIFTIT.

Chemists who live in areas where chemical munitions are being made are well aware of the stains which the handling of "C.E." and "T.N.T." cause. Some workers are more sensitive than others in regard to these stains, and we have no doubt that many of our readers have had requests over the counter for something to restore the hands to their natural colour. There is, however a more serious side to the munition yellow-stain, because it seems to bo agreed that absorption of trinitrotoluol takes place mainly, if not entirely, through the skin. As has been established by means of coroners' inquests, some individuals exhibit a

marked idiosyncrasy which predisposes them to poisoning. It becomes, therefore, not merely a question of personal appearance, but a health precaution, that the stains caused appearance, but a health precaution, that the stains caused by handling these chemicals should be removed. This week we had a call from Mr. Montague C. Rock, chemist and druggist, 38 King Street, Maidenhead, and he informed us that he is supervising the manufacture of a munitions stain-remover, "Shiftit," which is put on the market by the Maidenhead Manufacturing Co. Mr. Rock, with whom was Maidenhead Manufacturing Co. Mr. Rock, with whom was the inventor, gave a demonstration of the effects of the compound so far as that can be done without operating on stained hands. Shiftit is a paste with a soft-soap basis, and contains a substance which acts chemically on the stain, making it water-soluble. This reaction is apparent from the change in colour that takes place. It is intended to be used systematically for washing the skin of the body which has been exposed to the action of the munition chemicals; and, as it is claimed that Shiftit is non-poisonous and non-corrosive it can be employed on the face as well as the corrosive, it can be employed on the face as well as the hands. The inventor mentioned that there is evidence that the action of Shiftit continues after the washing is finished. as it has been found that if the worker sweats afterwards as it has been found that it the worker sweats afterwards the perspiration becomes coloured as it reaches the surface from the lower layers of the skin. The importance of this is obvious also on account of the equalising osmotic effect that probably takes place after washing. Shiftit is put up in grease-proof cardboard boxes, and sells at 10½d. and 2s. 6d. per package. It is kept in stock by Sangers and other wholesale dealers in proprietary articles.

BIOLOGICAL PRODUCTS.

The Anglo-French Drug Co., Ltd., Gamage Building, Holborn, London, E.C., sends us a sample of the serums produced by the Merieux

Institute, Lyons, which the company sole agent for the British Empire. The special feature of the Mericux serums is that they are packed in a manner which ensures that the serum keeps indefinitely. The package is known as the "Inalter" vial, and is shown in the accompanying illustration. Each vial is sent out in a wooden-case, but the peculiarity about tho Each vial is that it contains a

NALTER' OFCEDESIGN Nº 545434 DILLU

definite amount of carbolised water in the outer space, definite amount of carbolised water in the outer space, whilst an inner receptacle of yellow glass holds one grain of dried serum. These are both closed by a specially-arranged rubber-plug, the withdrawal of which causes the contents of the small yellow tube to empty into the carbolised water. When this has taken place the rubber plug is replaced and the vial shaken until complete solution has taken place, when the serum is ready for use. Many ingenious methods have been suggested for preserving serums so that they are not affected by age, and we think ingenious methods have been suggested for prescrying serums so that they are not affected by age, and we think that the Merieux Institute have succeeded in evolving a method which is both effectual and simple. The Anglo-French Drug Co.. Ltd., also send us samples of anti-diph-theritic tablets, employed in prophylactic treatment, and "Para-tetanine," a yellow powder used as a dusting-powder to the results of the prophylactic treatment, and "Para-tetanine," a low made by the Mariany for wounded surfaces. These are also made by the Merieux Instituto. A booklet explaining the use of the "Inalter" vial, and giving the method of using serums, will be sent by the British agents on application.

BOVRIL BONUS PICTURES.

Bovril, Ltd., 152-166 Old Street, London, E.C., send us particulars of the bonus pictures which they are offering to purchasers of bovril. The scheme is briefly that up to June 30 every package of bovril (except "bottlets") will bear a coupon, which, when accumulated in sufficient

quantity, can be exchanged for the pictures. Up to the date mentioned above coupons to the aggregate value of not less than forty-two units will be exchanged for a copy of either "The Duel," an engraving 40 by 30 in., or two smaller pictures entitled "On Derwentwater" and "A Promising Recruit," these being 22 by 30 in. The large picture has connected with it the following story:

A few years ago a certain gentleman, now a well-known member of Parliament, was paying a visit to an ancient country house famous for its historical associations in North Buckinghamshire. It was at the time of a General Election, and as the house was very full a room was allotted to him which was not, and is not now, generally used as a sleeping-apartment, but is remarkable for the beauty of its carved oak panelling. In the night the guest experienced a startling, vivid In the night the guest experienced a startling, vivid dream. He thought he was awake and saw the apartment brightly lit. A lady, young and of great charm, and a gentleman, in dresses of an age long passed, were and a gentleman, in dresses of an age long passed, were seated at a table apparently at supper, when suddenly heavy footsteps sounded outside, the door was flung violently open, and a cavalier, booted and spurred, burst into the room. The interrupted couple quickly rose from the table, and the two men, drawing their swords, divested themselves of their tunics and fought a desperate duel. While the lady, in the greatest distress, seemingly hesitated whether to cast herself between them, the first man fell pierced through the body, and with the screams of the lady ringing in his cars the dreamer awoke. At breakfast the visitor related the story of his dream to his host and hostess, but they had never heard of any episode in the history of the house to account for such a vision, and in the excitement of politics the matter was very soon forgotten. The story, however, had a sequel, for not very long afterwards the flooring of this particular room was being repaired, the flooring of this particular room was being repaired, and under the boards were discovered a silver-hilted rapier of beautiful workmanship, and a lady's satin shoe, both belonging to the period of about the middle of the seventeenth century. These are now preserved among the treasures and relics of the family.

In addition to the sentimental interest, a connecting link with the present war is provided by the history of the original painting which, had it been completed in time, was intended for exhibition at the Royal Academy; military duty, however, compelled the artist to leave an unfinished canvas and exchange the brush for the sword, the nitiate being completed and accounts on the sword, the picture being completed only quite recently, on his return. A circular is issued giving fuller particulars of the scheme, which chemists should study so as to be in a position to answer questions put to them by customers.

Memoranda.

WAXES AND PETROLEUM JELLY are special manufactures offered by J. J. Franses & Sons, 80a Southwark Street, London, S.E.

CREVALIN is a catarrh-curc made by Roberts' Croupline Depôt, Bolton. Particulars of this and of Croupline are given in the firm's advertisement.

KEENE'S PENNY CUBES are made by Keene's, cube specialists, Leicester. These are for producing various beverages, such as cocoa, tea, and malt and milk.

Grasshopper Pills and Ointment.—Albert & Co., 73 Farringdon Street, London, E.C., offer to send, post free, show-cards relating to these old-established remedies.

SPECIAL AERO CREAM is a substance for use in making

baking-powders and egg-powders. It is advertised in this issue by Walford & Co., Ltd., Collyhurst, Manchester.

Hammond, Jeffery & Co., Ltd., 8 Harp Lane, London, E.C., advertise bromural tablets, styptol tablets, diuretin, and santyl in this issue. These are made in this country.

COFECTANT LOZENGES are a topical line just now when there is so much influenza about. The lozenges are advertised in this issue by the proprietors, Edward Cook & Co., Ltd., Bow, London, E.

RAINA DEVELOPING-PAPER—Rajar, Ltd., Mobberley, Cheshire, call attention to the suitability of Rajina photographic-paper for use in the dark winter days. Selling points about the paper are given.

GLASSWARE.—One of the warehouses of Jules Lang & Son, Charlton Works, Charlton Place, Islington, London, N., is shown in the firm's bottle advertisement in this number. Some special bottles are also illustrated.

SYMPHELITE SPIRIT-STOVES are a winter line par excellence. The Symphclite Co., Shanklin, Isle of Wight, and 77 Craven House, Kingsway, London, W.C., give full details of the cost of the stove and its parts, also the comparative cost of using the stove with spirit and with petrol.

SOUTHALLS' TOWELS .- There is no advance in the price of these towels, which have been made for many years by Southall Bros. & Barclay. Ltd., Birmingham. The retail and trade prices are given in an announcement in this issue.

German Aims.—Raphael Tuck & Sons, Ltd., Moorfields, London, E.C., depict on coloured postcards the nefarious designs of the Germans to secure world-dominion. The postcards are in colour by Francisco Sancha, the Spanish artist.

CHEMICAL PLANT.—Danto Rogeat & Cie., 33 to 39 Chemin des Culottes, Lyons, are specialists in the manufacture of enamelled-iron apparatus which resists high temperatures and pressures. The London representative is Mr. II. Slogg, 51 Anson Road, Cricklewood, N.W.

ADVANCE CAN AND DRUM FILLER.—Roberts' Patent Filling Machine Co., 33 Roundcroft Street, Bolton, figure this filler in their advertisement. It is largely used among makers of sheep-dips, disinfectants, lubricants, etc., and the illus-tration conveys an idea of the working principles of the

LOOSE-LETTER SIGNS.—S. Maw, Son & Sons, 7 to 12 Aldersgate Street, London, E.C., are distributing agents for the "Perfect" sign manufactured by The Expert (Loose Letter) Sign Co. (incorporating H. Conridge & Co.), 26 Ludgate Hill, London, E.C. The firm's advertisement in this issue shows what the signs are like.

CINCHONA TONIC.—H. E. Stevenson & Co., 122 Great Suffolk Street, London, S.E., give particulars about the "Eklips" brand of cinchona tonic, which is a permanent solution of the cinchona active principles in their natural combination. The Zinyl synthetic otto of rose is another special preparation which the company advertise.

Aspirin.—Pickard, Ive & Rankin, Ltd., Walmer Chemical Works, Notting Hill, London, W., call special attention to their manufacture of aspirin. Having devised a new continuous process, the company is able to produce a product of unsurpassed appearance and uniform quality which more than answers the requirements of the British Pharmacopœia,

A Scala of Odours.—This is the poetic but appropriate manner in which Polak & Schwarz's Essencefabrieken, Ltd., Zaandam, Holland, refer to their synthetic material for perfumes. They supply alcohols and aldehydes of the C_s, C_s, C_n, C_n, and C, series of aliphatic compounds which possess delicate odours and form valuable products for use in the science of building up various flower perfumes.

EUCRYL, LTD., inform us that they have opened a depôt at 3 Cadogan Street, Glasgow, and have appointed Mr. Wm. Mackie, formerly their Scottish agent, as branch manager. This depôt will in future be responsible for working the whole of Scotland and the four northern counties of England. Mr. Mackie will devote his personal attention to Glasgow and the South-East. The West of Scotland will be worked by Mr. Forbes Taylor, while Mr. Battey Patterson will be responsible for the four porthern counties. northern counties.

SURGICAL CATGUT. - One of the shortcomings that the war SURGICAL CATGUT.—One of the shortcomings that the war revealed to us was the fact that this country had been depending for its supplies of surgical catgut mainly upon the imported products and these latterly had come largely from Germany. In order to meet the British demand G. F. Merson & Co., after satisfactory experimental work, opened a factory at 7 Meuse Lane, South St. Andrew Street, Edinard Co. a factory at 7 Meuse Lane, South St. Andrew Street, Edinburgh, where they have been producing aseptic and iodaseptic catguts for nearly a year. The firm make the guts from fresh raw material, and their product has been approved by leading surgical specialists, and is in use in many British hospitals; while it is also supplied under a -War Office contract for the Army Medical Service. Messrs. Merson will be glad to supply trade particulars to those who are concerned. who are concerned.

FLAVINE.—This substance is an aniline dye (diaminomethyl-acridinium-chloride). It was originally made by Benda for Ehrlich, and has trypanocidal powers. Drs. Browning, Gulbansen, Kennaway, and Thornton have brought forward remarkable evidence to show that this subbrought forward remarkable evidence to show that this substance should prove an excellent general antiseptic (see page 102). The important feature of Flavine is that it is not interfered with by the presence of protein—e.g., blood serum—but on the contrary its antiseptic power is enhanced. For clinical use, generally speaking, a 1 in 1,000 solution in normal saline is employed, and there is no doubt that it will be in very considerable demand. W. Martindale, 10 New Cavendish Street, London, W., informs us that he hopes to be able to supply Flavine commercially very shortly. A pamphlet on the subject of its employment has been issued pamphlet on the subject of its employment has been issued and will be sent to those desiring further information. W. Martindale gives in this issue an interesting list of organic chemicals which he is in a position to supply on advantageous

Associations' Winter Session.

Birkenhead.—At the January meeting of the Birkenhead, Wallasey, and Wirral Association of Pharmacists, Mr. Cecil Owen, B.Sc. (Chester), read a paper on "Pharmaceutical Reform," advocating individual efficiency and specialisation in pharmacy. The paper was discussed by Messrs. Cooling, Stelfax, Rowlands, Lunt, Wynne, Sturt, and Wright; and Mr. Owen was heartily thanked.

Cambridge Juniors. - The Junior Pharmaceutical Asso. ciation mct at Croyden Chambers on Tuesday, January 9. There was a very good attendance. Mr. T. J. Mallett gave some very interesting reminiscences and practical and useful hints for students. He began his discourse by describing the drug-trade of forty years ago. The chief patents then hints for students. He began has the chief patents then the drug-trade of forty years ago. The chief patents then sold were Holloway's and Eade's pills, etc.; Beecham's were sold were Holloway's into the market. Powell's balsam and Hopenholloway's holloward. Kay's essence of linsed were much in demand. Hop bitters, 4s. a bottle, were "a great thing," as were also Rooke's elixir (4s. 6d. and 11s. bottles). Only one or two American preparations were sold; Winslow's syrup was one. For the hair, bear's grease was in demand. The soaps were Cleaver's honey and Bentley's brown Windsor; Pears' was just introduced. Chemists sold all flavouringessences, also mustard, good-class pickles, sardines, etc., at essences, also mustard, good-class pickles, sardines, etc., at their full prices: There were no cut prices then, though it was rumoured that a certain Bristol chemist was selling patents at cut prices. The principal foods were Revalenta, Benger's, Ridge's, and Neave's. The chemist at that time was a registered man, not examined; and not friendly to the Society. The hours of business were from 8 till 8, and 11 p.m. on Saturdays; on Wednesdays they closed at 1 p.m., played at making soda-water until 5 p.m., when they reopened shop. In pharmacy they had a thorough training, making everything they sold, such as tinctures, powders, etc. Pulv. glycyrrh. co. was first introduced from the German Pharmacopeia. Mr. Mallett then went on to tell how, without anyone to help them, he and two other apprenhow, without anyone to help them, he and two other apprentices studied chemistry, botany, and materia medica; and finished his lecture by giving some valuable hints on how to study materia medica. Ho advised the students to form a pocket materia-medica cabinet. In one pocket they should carry a notebook and pencil; in another a case with some numbered envelopes; then they should collect leaves, put one leaf in each envelope, and write in their notebook the number of the envelope, with name and notes on leaf. A third pocket could hold, a tin divided into eight parts for gum-resins. They should also carry two boxes with divisions for other specimens, a box for small roots, and a case containing twenty-four 2-dr. boxes for umbelliferous fruit and small seeds. He advised the special study of opium, belladonna, hyoscyamus, strophanthus, nux vomica, and ergot. A vote of thanks was accorded to the lecturer, who then offered a prize for the best pocket materia-medica cabinet with notes.

Chemical Society.—At an ordinary meeting of the Society, held at Burlington House, Piccadilly, W., on January 18 (Dr. Scott, F.R.S., in the chair), a lecture on "Alloys of Copper and Tin, Aluminium and Gold" was delivered by Colonel C. T. Heycock, which was a summary of the work already published by himself and the late My Noville, with whom he had long been associated. late Mr. Neville, with whom he had long been associated in the investigation of alloys. From diagrams and charts he illustrated the effects on the freezing-points of various metals by addition of small proportions of others, pointing out that the depression produced was generally found to be greater the lower the atomic weight of the added metal. The ordinary laws relating to the cooling of saline solutions were true in the case of these metallic solutions. On cooling a dilute salt solution, for instance, freezing-out of the solvent took place first, whereas with stronger solutions the salt was the first to crystallise. These solutions of one metal in another behaved in an exactly similar manner. The Röntgen rays, soon after their introduction, had been employed to investigate the constitution of alloys and metallic solutions under various conditions. Several lantern-slides were shown illustrating the effects observed, particular attention being drawn to those showing precipitates of metal from solution exactly similar to those obtained from salino solutions. A large number of magnificent slides were shown to illustrate the gradual changes in the crystalline appearance of mixtures and the effects of sudden chilling. Dr. Scott and Professor Armstrong spoke at the close of the lecture, and a hearty vote of thanks was accorded to Coloncl Heycock.

Dundee - At a meeting of the Dundee and East of Scotland Chemists' Association, held on January 18, Mr. J. R. Milne presided, and the attendance was not large. The Chairman mentioned sympathetically the death of Messrs. Doig and Lawson. Referring to the alleged misuso of methylated spirit, Mr. Milne said it was satisfactory to know that there was little evidence to connect chemists with the trade in the article. It was agreed to issue a circular to members urging them to exercise care in the sale of the spirit. The Chairman said the new price-list had met with considerable favour, and the second monthly issue had now been distributed.

Faling.—The Ealing Pharmacists' Association met on January 16 at Buols Restaurant. In the absence of the President, Mr. S. W. Harrison (Vice-President) took the chair. A discussion was opened by Mr. S. C. McKee on N.H.I. dispensing, and the necessity of deciding early what were the terms on which it would be better to combine, and a resolution is to be sent to the County Executive for submission to all the district Associations, so that concrete proposals may be forthcoming. Mr. Skinner introduced the principle of the surplus-stock list, and as it met with the unqualified approval of the members it was resolved to put it into action forthwith.

Glasgow.—The third meeting of the session of the Glasgow and West of Scotland Chemists' Association was held at 165 Hill Street on January 18. Mr. McMillan (President) occupied the chair, and there was a crowded attendance to hear Mr. James Crombic, Ph.C., on "Reflections and Confessions of an Examiner." Mr. Crombic assured his audience that the popular conception of the examiner as a sort of ogre who not only had no sympathy whatever with the student, but was actively hostile to his chances of success, was really without foundation. He was able to assure them that, from personal experience, the able to assure them that, from personal experience, the examiners were, one and all, actuated by a really genuine desire to give every student the fairest of chances, and to test his capabilities as a pharmacist certainly with thoroughness, but also with the utmost consideration. Nervousness and diffidence on the part of students and the simple blunders into which these sometimes lead, had allowance made for them. He thought that he could suggest two improvements. One was that the examination should be partly written and partly oral on the theoretical day, and the other was that the student's record in class-work during his studies, as made by his teacher, should be accepted and taken into consideration by the board of examiners. A lively and interesting discussion followed. The Chairman criticised adversely the modern form of certificate to Minor graduates, and also the manner in which it was presented. He thought that the course of study through which the student had passed, the expense, and the real importance of the event to the candidate himself dereal importance of the event to the candidate himself deserved something better than an uninteresting-looking paper bearing one signature and handed out uncercomoniously by the porter. The same matter was adversely criticised by the other speakers. Mr. M. M. Irvine (Principal of the Glasgow School of Pharmacy) complained seriously of the fact that various examiners had opposite theories on certain points, and that was very unfair to a student. He instanced the matter of a single solution of a salt (per cent.) weight in volume. of a simple solution of a salt (per cent.) weight in volume. Some examiners held that the calculation for the solid should be made on the basis of the Apothecaries' ounce of 480 gr., and others held with equal emphasis that the avoirdupois ounce of 437.5 gr. was the correct thing. Obviously a question to a student on such a disputed point was in reality a more trap, and the student's reputation depended not on what was the fact, but on what theory the particular examiner happened to hold. Mr. Hoppenstein, Mr. Duff, Mr. J. H. Ramsay, Ph.C., and Miss Miller also made interesting contributions to the discussion, and. on the motion of the Chairman, a very hearty vote of thanks was passed to Mr. Crombie.

Huddersfield.—The Huddersfield and District Chemists' Association met on January 16, Mr. V. Shaw (President) in the chair. Mr. Pickering was deputed to wait on a local firm who are still selling large quantities of glycerin. Mr. J. Cooper (Hon. Secretary) submitted the balance-sheet, showing a satisfactory surplus, and was thanked for his services. It was resolved to send a letter of protest to owners of proprietary articles the sale of which is unremunerative.

Leeds.—The Leeds Chemists' Association met at the Grand Central Hotel on January 17. Mr. N. N. Armitage (President) in the chair. Mr. J. Hayes read a paper on the practice of pharmacy, which was discussed by Messrs. Beacock, Roshstein. F. P. Sergeant. and the President, and the author received a vote of thanks.

Association was held at the Restaurant Frascati on January 18, Mr. W. Wilkinson (President) in the chair.

The Secretary (Mr. W. E. Shirtliff) reported on recent meetings of the London County Executive and the Pharmaceutical Committee. Mr. G. A. Mallinson, Superintendent of the Central Checking Bureau, opened a discussion on An Inerease in Insurance Dispensing Fees. He favoured a flat-rate dispensing-fee and a profit on appliances. A valuable discussion followed, in which Messrs. Shenstone, Pratt, Bariett, Widgery, Shirtliff, Keith, Moss, Evans, and Jones took part, and a resolution, proposed by Mr. Shirtliff and seconded by Mr. A. Smith, pledging the meeting to support the decision of a 90-per-cent. majority of London pharmacists on the question of new terms for Insurance dispensing, was carried. A vote of thanks was accorded to Mr. Mallinson for his address.

Merthyr.—The Pharmacists' Association met on January 10, Mr. V. A. Wills in the chair. Circular P.S. 31 was discussed, and it was decided to inform Mr. Woolcock that grocers and small shopkeepers are freely selling glycerin in the borough, while chemists are refusing to do so, and ask him to lay the matter before the proper authority. The annual meeting is to take place on February 7.

middlesex.—The Middlesex Pharmaceutical Association met on January 17 at the Holborn Restaurant, Mr. Herbert Skinner (President) in the chair. The chief item discussed was a resolution from the Ealing Association on remuneration for Insurance dispensing. It was felt to be insufficient to say that a certain sum was necessary unless the suitable arguments were ready to support the request. A discussion followed, and the result was that the supervisor was asked to prepare a case from all the facts available, so that the matter may be discussed by the affiliated Associations and the results sent to the County Executive for the formulation

of the agreed demands.

N.E. Lancs.—The annual meeting of the North-East Lancashire Chemists' Association was held at the Victoria Hotel, Blackburn, on January 18. Mr. R. Lord Gifford, J.P., presided over a representative attendance. The following officers were unanimously re-elected: President, Mr. R. Lord Gifford, J.P.; Viee-President, Mr. C. A. Critchley; Hon. Treasurer, Mr. J. W. W. Openshaw; Hon. Auditor, Mr. C. Parkinson; and General Secretary, Mr. Fred Law. A tribute was paid to the services these officials had readered to the Acceptation repetition. had rendered to the Association, special mention being made of Mr. Gifford, who acknowledged the compliment. The sale of glycerin was discussed, and a resolution was passed pledging chemists to confine its use and sale simply to legitimate family recipes, doctors' precriptions, and medicinal purposes, and refusing absolutely to sell it in a pure state for toilet preparations or for any other than medical requirements. Mr. McKie proposed, and Mr. C. A. Critchley seconded, a resolution "that it was desirable that sugar should be supplied for pharmaceutical purposes. The motion was carried, and was ordered to be forwarded to the Pharmaceutical Council. Mr. Isherwood was nominated for a vacancy on the local Pharmaceutical Committee. Mr. Gifford, in the course of an address on trade topics, made a reference to the suggestion that the Secretary of the Pharmaeeutical Society should become a Parliamentary candidate with the object of representing the profession in the House of Commons. The proposal, said the President, seemed to have caused considerable misapprehension. dent, seemed to have caused considerable misapprehension, and it was thought, perhaps naturally so, that this would seriously interfere with secretarial duties. Mr. Gifford cordially supported the proposal, as he was convinced it would be in the best interests of chemists to have direct representation in Parliament. He reminded pharmacists generally that they were only on the threshold of work which they had been doing during the last few years. They were aiming at higher and bigger things. Improvements could be effected if they had their views clearly expressed and emphasised, not only in the Lobby of the House of Commons, but in Parliament itself. Turning to what he described as "these interminable discussions on the question of organisation." Mr. Gifford thought there was a good deal of wasted energy and time. Ever since he became a member of the Council he had strongly held the view that they possessed a splendid organisation, but that it was a paper organisation. There seemed to be an idea in some quarters that more conferences should be held. He protested against such an innovation, contending that it would only result in a veste of time. held. He protested against such an innovation, contending that it would only result in a waste of time. There were many matters in eonection with the remuneration of chemists under the Insurance Act which ought to receive proper attention. What was needed was that influence should be brought to bear on legislators with a view to urgent reforms being instituted without unnecessary delay. Votes of thanks concluded the meeting.

Mr. C. Werder, a director of the "Nestle's Kindermehl G.m.b.H." in Berlin, dicd on December 12.

Insurance Act Dispensing.

A Record of matters concerning Chemists' interests in the National Health Insurance Acts.

Inquiry about a Panel Practitioner.

A Committee, appointed by the Commissioners, sat at the head offices of the Commission, Buckingham Gate, London, W., on January 19, to hear an Inquiry under Part VI. of the National Health Insurance (Medical Benefit) Regulations (England), 1913, to ascertain whether the continuance of Dr. William Spencer Lewis, 96 Redcliffe Gardens, South Kensington, S.W., upon the panel of medical practitioners for the County of London is prejudicial to the efficiency of the medical service of the insured. The Committee of Inquiry consisted of Mr. J. Fischer Williams (Chairman), Dr. H. B. Brackenbury, and Dr. Arnold Lyndon. Mr. M. L. Gwyer, with Mr. E. MacGowan (Clerk), conducted the case for the Insurance Commissioners, and Dr. Lewis was represented by Sir Hugh Fraser. The charge alleged against Dr. Lewis was that in 1914 and 1915 he put forward several thousand "record" cards of diseases of his patients, which it was his duty to prepare for statistical purposes and send to the Insurance Commissioners, which were, in fact, false to his knowledge. Dr. Lewis had between five and six thousand patients on his panel, in addition to a substantial private practice, and, being a busy man, he appeared to have handed over a number of cards (2,000) to his dispenser and instructed him to fill them up, firstly with the name and address of the patient, (2) occupation and sex, (3) nature of illness. For this purpose the dispenser was permitted to give free rein to his fancy and imagination, and even in copying the names of the diseases from a book with which he had been supplied he had done so inaccurately. An analysis of the cards had been made by the Registrar of the London Insurance Committee, when it was, found that 160 names could not be traced. Sir Hugh Fraser said Dr. Lewis wished to leave himself in the hands of the Commissioners. The view he (Dr. Lewis) had taken of the record cards was that they were simply a matter of formality and clerical work. He had not sent his cards in in the form he did with the view of preventing his remu

Reports from Local Centres.

Bournemouth.—The Insurance Committee met on January 22, when the accounts for the past year showed that 1,465l. 5s. 5d. was paid in respect to the drug-fund, as compared with 624l. 11s. 10d. in 1915.

Cornwal.—The Pharmaceutical Committee met at Redruth on January 19, when the following officers were appointed for the ensuing year: Chairman, Mr. Cannon (Penzance); Seeretary, Mr. Hall (Truro); Representative on the Cornwall Insurance Committee, Mr. Cannon, Executive Committee, Messrs. Cannon, Roberts, and Stephens. It was decided to appoint the Central Checking Bureau to act as checkers for 1917, and to point out to them that the terms were excessive for the number of prescriptions checked. An estimate to cover the expenses of the Committee for 1917 was prepared, and the Sceretary was directed to apply to the County Committee for the amount to be deducted as a levy from the chemists' accounts.

Grimsby.—The quarterly meeting of the Grimsby Insurance Committee was held on January 18, Mr. J. W. Wilkin (Chairman) presiding. The Medical Benefit Sub-Committee reported the intention of the Panel Committee to adopt ten stock mixtures and the Formulary known as the Sheffield Formulary. It was reported that the doctors and pharmacists at present on the panel had agreed to continue the service for the ensuing year. It was resolved to ask the Commissioners for a grant in aid of the extra expense incurred by the transfer of the prescription-checking from the Clerk's office to the Bureau. The agreement with the Grimsby Corporation relating to the proposed Tuberculosis Dispensary in Grimsby was approved. The Commissioners have arranged with the military authoritics as to the release for military service of certain dispensers by Boots, Ltd., and Tavlor's Drug Stores. Mr. Bowskill, Grimsby, has been elected Secretary of the local Pharmaceutical Committee in succession to Mr. C. H. Ashton, resigned.

Tondon —At the meeting of the London Insurance Committee on January 25, the Finance Committee reported its opinion that administrative expenditure may be charged

against the balance of any sum allotted for such expenses, irrespective of the year when the hability was incurred. The balances due to chemists on the 1914 accounts have been paid—in some eases overpaid to the amount of 1591. 8s. 3d., which sums, it is suggested, shall be recovered by legal process in the case of chemists who have resigned from the panel. The Medical Benefit Sub-Committee have arranged for the payment to chemists of 5d. per script for December, and recommend that the same sum be paid on account during 1917. The following names have been added to the list of contractors for drugs and appliances: Hilda W. Davies, Eltham; C. Gadd & Son, Stockwell; J. A. Hayes, Notting Hill; Lydia E. Jacob, Bethnal Green; Mortons Cash Chemists, Ltd., Hoxton; J. K. Reid (Vincents, Ltd.), Walham Green. The names of thirty-seven chemists and firms have been removed from the list. The Medical Service Sub-Committee reported on a number of cases of alleged breach of agreement by doctors. The Pharmaceutical Service Subirrespective of the year when the liability was incurred. The of agreement by doctors. The Pharmaceutical Service Sub-Committee's report dealt with several complaints against panel chemists, of whom two were exonerated, one was censured for inaccurate dispensing, one for discourtesy to a patient, and one for failing to remove the old label from a bottle when supplying a new and totally different medicine.

Middlesex.-The Middlesex Pharmaceutical Committee met on January 17 at the Holborn Restaurant, Mr. Herbert Skinner in the chair. The report of the checking department stated that the number of scripts sent in for October numbered 61,062, and the average cost was 6.87d. per script; the November scripts were 67999, and the average was 6.68d. Including arrears of earlier months, more than 70,000 scripts had been sent in for December, and the pricing and checking was now in progress. The total number priced for the eleven months ending November 30 last was 690,163, and the average per script was 6.97d.; adding the extra establishment allowance the average cost would be 7.32d. As anticipated, the November pricing was remarkably well done. The attention of the chemists was again directed to the desirability of indicating upon scripts the net cost of all proprietary and special preparations ordered, in view of the difficulty of obtaining recent price-lists of such

LATEST PRICES. England and Wales.

The January Tariff issued by the National Insurance Commissioners (England) embodies the following alterations in the prices of war-affected drugs:—Lower: Acetanilidum, 4s. lb.; acid. hydrobrom. dil., 1s. 11d. lb.; acid. salicylic., 9s. lb.; ext. malti c. ol. morrh. B.P.C., 1s. 3d. lb.; ferri et ammon. cit., 3s. 8d. lb.; guaiacol carbonas, 11s. oz.; hexamina, 4d. oz.; hydrarg. perchlor. (pulv.), 7s. 8d. lb.; methyl salicylas, 9½d. oz.; phenazon., 3s. 4d. oz.; phenolphthalein., 7s. 8d. oz.; pil. quin. sulph. gr. i., 1.58d. per doz., gr. ii., 2.50d. per doz.; pot. cit., 5s. 4d.; pulv. cretæ c. opio, 3s. 2d. lb.; pulv. sodæ tart. eff., 8.75d. per doz.; sennæ fructus (picked Tinnev.), 2s. lb.; sodii benz., 2s. 2d. oz.; sodii salicylas (cryst.), 9s. 6d. lb.; tab. acid. acetylsal. gr. v., 5.02d. per doz.; tab. guaiacol. carb. gr. v., 17.70d. per doz.; tab. phenolphthalein. gr. i., 3.24d. per doz., gr. ii., 5.76d. per doz.; oiled eambric. best quality, per sq. yard, 19d.; adhesive plaster (spread on holland), per sq. foot, 3.28d. Higher: Acid. acetic., 9½d. per lb.; acid. sulph. aromat., 5s. 7d. per lb.; æther B.P. 0.720, 3s. 2d. lb.; aloinum, 5½d. per oz.; anthem. flor. exot., 4s. 3d. lb.; argent. nit., 2s. 6d. oz.; argent. nit. indur., 2s. 9d. oz.; eamphora (flowers), 3s. 9d. lb.; capsulæ copaibæ m. 10, 2.52d. per doz.; capsulæ ol. santal. m. 10, 12.60d. per doz.; chloroform. F.P. 4s. 6d. lb.; chloroform. camph. B.P.C., 5s. 10d. lb.; cocain. hydrochlor., 4s. 3d. dr.; collod. belladon. B.P.C., 15s. 9d. lb.; collod. flexile meth., 3s. 10d. lb.; collod. vesicans, 22s. 4d. lb.; copaiba, 5s. 8d. lb.; dec. aloes co. 1s. 5d. lb.; dec. sarsæ jam. co. (ex concentrata), 1s. 9d. lb.; ext. bellad. liq., 21s. 5d. lb.; ext. casc. sagr. sic., 6s. 8d. lb.; ext. glyeyrrh. liq., 5s. 1d. lb.; ext. ergot. liq., 6s. 8d. lb.; ext. glyeyrrh. liq., 5s. 11d. lb.; ext. cinchonæ liq., 4s. 7d. lb.; ext. viburr. liq., 8s. 3d. lb.; hydraræ. oxid. flav., 9s. lb.; inf. aurantii (ex concentrata), 2s. 9d. lb.; iin. belladon. meth., 10s. 1d. lb.; lin THE JANUARY TARIFF issued by the National Insurance Commissioners (England) embodies the following altera-

lb.; liq. opii sed. B.P.C., 9s. 9d. lb.; liq. pancreatis, 4s. 4d. lb.; liq. picis carbonis, 6s. 4d. lb.; liq. picis carbonis meth., 1s. 10d. lb.; liq. strych. hydrochl., 2s. 4d. lb.; liq. trinitrini, 9d. oz.; mag. carb. lev., 11d. lb.; menthol, 1s. 5d. oz.; mist. sennæ co., 1s. lb.; ol. lini, 5s. 6d. gāl.; ol. ricini E.I. No. 1 (bleached), 1s. lb.; ol. santal., 4s. 2d. oz.; ol. tereb. rectif., 1s. 2d. lb.; opium pulv., 3s. 7d. oz.; pot. nit., 1s. 3d. lb.; pot. permang., 15s. lb.; pulv. kino co., 6s. 2d. lb.; pulv. opii co., 8s. 6d. lb.; resorcinum, 14s. 3d. oz.; spt. ætheris, 5s. 4d. lb.; spt. æther. co., 10s. 4d. lb.; spt. æther. nitrosi, 5s. 1d. lb.; spt. juniperi, 12s. 10d. lb.; spt. rectificatus, 5s. 8d. pint; spt. juniperi, 12s. 10d. lb.; spt. rectificatus, 5s. 8d. pint; spt. vini meth... 9s. 8d. gal.; strych. hydrochlor., 4s. 8d. oz.; succ. scoparii, 2s. 7d. lb.; succ. tarax., 2s. 11d. lb.; tr. aconiti, 5s. 3d. lb.; tr. asafet., 5s. 3d. lb.; tr. aurantii, 5s. 7d. lb.; tr. camph. co., 3s. 11d. lb.; tr. cannab. ind., 10s. 7d. lb.; tr. camph. co., 3s. 11d. lb.; tr. cannab. ind., 10s. 7d. lb.; tr. cardam. ec., 3s. 3d. lb.; tr. catechu, 3s. 2d. lb.; tr. chlorof. et morph. co., 8s. 1d. lb.; tr. catechu, 3s. 2d. lb.; tr. chlorof. et morph. co., 8s. 1d. lb.; tr. chlorof. et morph. 2s. 3d. lb.; tr. chlorof. et morph. 2s. 3d. lb.; tr. chlorof. et morph. 2s. 5d. lb.; tr. chlorof. et morph. co., 3s. 3d. lb.; tr. chlorof. et morph. 2s. 5d. lb.; tr. chlorof. et morph. co., 3s. 3d. lb.; tr. chlorof. et morph. 2s. 5d. lb.; tr. chlorof. et morph. 2s. 5d. lb.; tr. soli fort., 8s. 2d. lb.; tr. guaiaei ammon., 5s. 10d. lb.; tr. lavand. co., 6s. lb.; tr. lobel. æth., 7s. lb.; tr. nucis vom., 4s. 9d. lb.; tr. opii, 7s. lb.; tr. nucis vom., 4s. 9d. lb.; tr. opii, 7s. lb.; tr. nucis vom., 4s. 9d. lb.; tr. opii ammon., 4s. 6d. lb.; tr. valerian. ammon., 4s. 6d. lb.; tr. zingib., 6s. 6d. lb.; tr. valerian. ammon., 4s. 6d. lb

Scotland.

Supplementary to observations on the Scottish Tariff issued for January 1917 (C. & D., January 6, p. 50), we now append the prices for articles which are different from those in the list for December 1916:

Name.		oz.		dr.	Name.	
Anatomilia	^	. d.	s. 0	1.	Tia biamuth	
Acetanilid. Acetomorph.hy	0				Liq. bismuth.	•
Acid. acetylsal.	0. 00.	11	0	5		
	3		ŏ	6		••
	0	31	0	01		::
,, citric.			ŏ	0 1	Menthol	•••
" hydrob. di	1. 0		0	01	Methylsulphona	i
	0	11	0	2	Morph. acet.	
Adeps	0		0	01		
" lanæ hyd.	0	4	0	1	Naphthol	
Ammon. benz.		- 6	0	6	Ol. abietis	
Æther pur.		4	0	01/2	,, amygdal.	••
Ammon. brom.	0		0	$1\frac{1}{2}$	", cadinum	••
Atrop. sulph.	323.2	$d \cdot dr$		gr.		••
nais. reiu.	2	4 7d. dr.	0 3 4			••
Retacain. hyd. Bism. carb.		5	, 54.	21	Opii pulv. Papaver, capsul.	••
1.4	1	51	0	41		
,, oxid.	2	7 "	^	4		::
,, salicyl. ,, subgal.	2	4	ñ	4	TOIL	
" subnit.	ī	3 4 4 8 7 7 5	ő	21/2	Phenolphthalein	
Butylchlor, hyd	. 8	8	1	3	Physostig, sulph	
Caffeina	5	71	0 :	10		
Caff. cit	3	7호	0	61/2	TD 1	٠.
Chloroform.	0	$5\frac{1}{2}$	0	1 7	", bicarb.	
Chloral, hyd.	1	41/2	0	21		٠.
Cocain. hyd.	58.4	d. dr.,	$1\frac{1}{2}d$.	gr.	" iodid.	٠.
Caff. cit Chloroform. Chloral. hyd. Cocain. hyd. Codeina Codeina phos.	6s. 2½	d. dr.,	11d.	gr.	,, iodid.	ζ.
Codemæ phos.	58.72	a. ar.,	1½a.	gr.	Quin.hyd.	• •
Collod. bellad. Creasot.carb. Creasotum	F	71	ν.	10	,, ,, acid.	••
Crossotum	1	42	n.	21		
Oreasotum Digitalin. (amor) Emul. morrhuæ, ,, c. hyr	1	s 5d	ner	or		••
Emul. morrhuæ.		2d. ne	er oz			
e. hyr	0,	3d. pe	er oz			
Ext. bellad.vir.	1	3	0	21/2	Cod tod	
" cannab. in	d	_	1	6 -		
argot			0	6	Spt. animon. aro.	
,, ,, liq.	61	d. oz.,	1d.	dr.	,, rect ,, vin. metb.	••
,, ,, liq. ,, filicis liq. ,, malti	4	21/2	0	71/2	,, vin. metb.	
" malti		$[1^{\frac{1}{2}}\tilde{d},]$	per I	0.		•••
", "е. шоп	11. 10	$5\frac{1}{2}d$.	per	4		•••
,, opii sic. Ferri et quin. cit	9		Ţ	31	Syr. aurant.	
Glycerin.	. 2	2d. pe	U 3 F 0 7		,, fer. phos.	h
Guaiacol carb.	14	81	9	14	Tab. phenacet.	
Hexamina	10	8½ 6¾	ñ	i	,, ,, co.,	•••
Homatrop. hydr	ob. 1	s. 9d.	ner		Theob. sod. sal.	
Hydr. ammon.	- 1	1	n	2	Tbymol	
Ichthyol.	0	8½ 10 5½	0	11	Thyroid. sic.	
Iodoform.	2	10	0	5	Tinct. iod. fort.	
Ichthyol. Iodoform. Iodum	2	51/2	0	41	,, ,, mit	
Lin. Den. metn.	0	10	U	11	Ung. gall. c. opic)
Lin. opii						
	0	6	0	1		•••
Lin. pot.iod.c. sa Lio. atrop. sulph	p. 0	4 .	0	1 7	Zinc. valer	• • •

Liq. bismuth.	Name.	03.	dr.
Liq. bismuth. 0 2 0 0 0 1 1	Traine.		
morph.hyd. 0 5	Lig, bismuth.	0 0	
Malourea	morph, hyd.	0 51	
Malourea	onii sed.	0 81	
Malourea	trinitrini	1 0*	0 2
Menthol 1 10½ 0 3½ Methylsulphonal 7 11½ 1 2 Merph, acet. .4s. 1d. dr., 1d. gr. Morph, hyd. .4s. 1d. dr., 1d. gr. Napbthol 2 5½ -0 4½ Ol. abietis 1 5 0 2½ " amygdal. 0 3½ 0 ½ " amygdal. 0 4 0 1 0 " morrhuæ 3s. 6d. per pint. , santal. 5 ½ 0 ½ Opii pulv. 4 8 0 8 Papaver. capsul. 8½d. per doz. Pepsin. 2 5½ 0 4½ Phenacom. 2 13 1 11 Phenazom. 4 11 0 8½ Phenactin. 13 4 11 1 11 Phensosig. sulph. 1 gr. 4¾d. Plocarp. nit. 1 gr. 4½d. 1 gr. 4½d. Plotass. acet. 0 5½ 0 1 "bicarb. 0 2½ 0 0½ "brom. 0 10 1½ "brom. 0 10 1½ "brom. 0 10 1½ "brom. 0 10 1½ "brom.	Malourea	10 6	ĭ 6
Methylsulphonal 7 11½ 1 2 Morph, acet. 4s. 1d. dr. 1d. gr. Morph. hyd. 4s. 1d. dr. 1d. gr. Morph, hyd. 4s. 1d. dr. 1d. gr. Napbthol 2 5½ 0 4½ Ol. abietis 1 5 0 2½ 0 2 " amygdal. 0 3½ 0 0½ 0 1 " cadinum 0 4 0 1 1 , cadinum 0 4 0 1 1 " morrhuæ 3s. 6d. per pint , santal. 5 4½ 0 9½ 0 Opii pulv. 4 8 0 8 8 papaver. capsul. 8½d. per doz. 2 6 0 4½ 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	Menthol	1 101	
Morph, acet. 4s, Id, dr., Id, gr. Morph, hyd. 4s, Id, dr., Id, gr. Napbthol 2 5t, -0 4t, 1	Methylsulphonal	7 111	1 2
Rapotalot 2 3\frac{1}{2} 0 0 0 0 0 0 0 0 0	Morph, acet	4s. 1d. di	1d. gr.
Rapotalot 2 3\frac{1}{2} 0 0 0 0 0 0 0 0 0	Morph, hyd	48. 1d. dr	. 1d. gr.
, amygdal. 0 3½ 0 0½ , cadinum 0 4 0 1 , morrhuæ 35, 6d, per pint , santal. 5 4½ 0 9½ Opii pulv. 4 8 0 8 Papaver. capsul. 8½d, per doz. Pepsin. 2 5½ 0 4½ Phenacetin. 13 4 1 11 Phenazon. 4 11 0 8½ Phenolphthalein. 12 7½ 1 10 Physostig, sulph. 1 gr. 11d. Pillocarp. nit. 1 gr. 11d. Potass. acet. 0 5½ 0 1 , bicarb. 0 2½ 0 0½ , brom. 0 10 0 1½ , brom. 0 10 0 1½ , brom. 1 1 gr. 11d. Potass. acet. 1 1 gr. 11d. Potass. acet. 1 2 0 0½ , brom. 1 3½ 0 0½ , acid. 1 7½ 0 3 , permang. 1 3½ 0 0½ , acid. 7 4½ 1 1 , sulph. 4 9½ 0 8½ Resorcin. 17 3½ 2 6 Salicin. 2 11 0 5 Salol 1 10½ 0 3½ Salicin. 2 11 0 5 Salol 1 10½ 0 3½ Santonin. — 2 6 Sod. iod. 2 4 0 4 , salicyl. 0 11½ 0 2 Spt. ammon. arom. 0 5 0 1 , rect 0 5 0 1 , vin. metb. 0 1 — Sulphonal 4 0 0 7 Supp. morpb. 1s. 3d. per doz. Syr. aurant. 0 2 , fer. phos. c, quin. et strych. 0 3 0 0½ Tab. phenacet. 1s. 9¼d. per doz. Theob. Sod. sal. 5 11½ 0 10½ Thymol 4 8 0 8 Thyroid. sic. 5 11½ 0 10½	Naphthol	. 4 08	U 4e
, amygdal. 0 3½ 0 0½ , cadinum 0 4 0 1 , morrhuæ 35, 6d, per pint , santal. 5 4½ 0 9½ Opii pulv. 4 8 0 8 Papaver. capsul. 8½d, per doz. Pepsin. 2 5½ 0 4½ Phenacetin. 13 4 1 11 Phenazon. 4 11 0 8½ Phenolphthalein. 12 7½ 1 10 Physostig, sulph. 1 gr. 11d. Pillocarp. nit. 1 gr. 11d. Potass. acet. 0 5½ 0 1 , bicarb. 0 2½ 0 0½ , brom. 0 10 0 1½ , brom. 0 10 0 1½ , brom. 1 1 gr. 11d. Potass. acet. 1 1 gr. 11d. Potass. acet. 1 2 0 0½ , brom. 1 3½ 0 0½ , acid. 1 7½ 0 3 , permang. 1 3½ 0 0½ , acid. 7 4½ 1 1 , sulph. 4 9½ 0 8½ Resorcin. 17 3½ 2 6 Salicin. 2 11 0 5 Salol 1 10½ 0 3½ Salicin. 2 11 0 5 Salol 1 10½ 0 3½ Santonin. — 2 6 Sod. iod. 2 4 0 4 , salicyl. 0 11½ 0 2 Spt. ammon. arom. 0 5 0 1 , rect 0 5 0 1 , vin. metb. 0 1 — Sulphonal 4 0 0 7 Supp. morpb. 1s. 3d. per doz. Syr. aurant. 0 2 , fer. phos. c, quin. et strych. 0 3 0 0½ Tab. phenacet. 1s. 9¼d. per doz. Theob. Sod. sal. 5 11½ 0 10½ Thymol 4 8 0 8 Thyroid. sic. 5 11½ 0 10½	Ol. abietis	. 15	0 2 🖁
morrhum	,, amygdal	0 31	$0 0\frac{1}{2}$
morrhum	", cadinum	0 4	0 1
, santal	", morrhuæ	3s. 6d.	per pint
Papaver. capsul	,, santal	5 4 1/2	0 9½
Papaver. capsul	Opii pulv	4 8	0 8
Pepsin	Papaver, capsul	$8\frac{1}{2}d$.	per doz.
Phenacetin. 13 4 11 Phenacon. 4 11 0 8½ Phenolphthalein. 12 7½ 1 10 Physostig. sulph. 1 gr. 11d. Potass. acet. 0 5½ 0 1 Pilocarp. nit. 1 gr. 4½ d. Potass. acet. 0 5½ 0 1 Potass. acet. 0 5½ 0 1 Potass. acet. 0 1 2½ 0 0½ Potass. 1 7½ 0 1 2½ 0 1 2½ 0 0½ Potass. 1 7½ 0 1 2½ 0 1 2½ 0 0½ Potass. 1 7½ 0 1 2½ 0 1 2½ 0 0½ Potass. 1 1 1 2½ 0 1 2½ 0 0½ 0 0½ 0 0½ 0 0½ 0 0	Pepsin	2 5 1	0 41
Phenolphthalein 12 7½ 1 10 Physostig. sulph. 1 gr. 11d. Pilocarp. nit. 1 gr. 4½d. Pilocarp. nit. 1 gr. 4½d. Potass. acet. 0 5½ 0 1 y bicarb. 0 2½ 0 0½ y brom. 0 10 0 1½ y icaid. 1 7½ 0 3 y permang. 1 3½ 0 2½ Quin.hyd. 5 11½ 0 10½ y, acid. 7 4½ 1 1 y sulph. 4 9½ 0 8½ Resorcin 17 3½ 2 6 Salicin. 2 11 0 5 Salol 1 10½ 0 3½ Santonin. — 2 6 Salicin. 2 11 0 5 Salol 0 11½ 0 3½ Santonin. — 2 6 Sod. iod. 2 4 0 4 y, salicyl. 0 11½ 0 2 Spt. ammon. arom. 0 5 0 1 y, rect 0 5 0 1 y, rin. metb. 0 1 — Sulphonal 4 0 0 7 Supp. morpb. 1s. 3d, per doz. Syr. aurant. 0 2 y, fer. phos. c, quin. et strych. 0 3 0 0½ Tab. phenacet. 1s. 9¼d. per doz. Theob. sod. sal. 5 11½ 0 10½ Thymol 4 8 0 8 Thyroid. sic. 5 11½ 0 10½	Phenacetin	13 4	1 11
Phenolphthalein. 12 7½ 1 10 Physostig. sulph. 1 gr. 11d. Pilocarp. nit. 1 gr. 4½d. Pilocarp. 1 0 2½ 0 0½ policarp. 0 2½ 0 0½ policarp. 0 12½ 0 0½ policarp. 1 3½ 0 10½ policarp. 1 1 3½ 0 10½ policarp. 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	Phenazon	4 11	0 81
Prijosory, suspin. Prijosory, su	Phenolphthalein	12 71	1 10
Potass. acet 0 5½ 0 1 ,,, bicarb 0 2½ 0 0½ ,, brom 0 10 0 1½ ,, indid 1 7½ 0 3 ,, permang. 1 3½ 0 2½ ,, acid 7 ½ 1 1 ,, sulph 4 9½ 0 8½ Resorcin 17 3½ 2 6 Salicin 2 11 0 5 Salol 110½ 0 3½ Santonin 2 2 6 Sod. iod 2 4 0 4 ,, salicyl 0 11½ 0 2 Spt. ammon. arom. 0 5 0 1 ,, rect 0 5 0 1 ,, vin. metb. 0 1 Supp. morpb. 1s. 3d. per doz. Syr. aurant 0 2 , fer. phos. c, quin. et strych. 0 3 0 0½ Tab. phenacet 1s. 9¼d. per doz. Theob. sod. sal 5 11½ 0 10½ Tbynol 4 8 0 8 Thyroid. sic 5 11½ 0 10½ Thyrol 4 8 0 8 Thyroid. sic 5 11½ 0 10½	Physostig. sulph.	I gr.	11a.
bicarb. 0 2½ 0 0½ porm. 0 10 0 1½ porm. 1 3½ 0 2½ Quin.hyd. 5 11½ 0 10½ porman 1 3½ 0 2½ Quin.hyd. 5 11½ 0 10½ porman 1 3½ 0 8½ Resorcin. 17 3½ 2 6 Salicin. 2 11 0 5 Salicin. 2 11 0 5 Salicin. 1 10½ 0 3½ Santonin. 2 4 0 4 porman 2 4 0 4 porman 2 5 0 1 porman 2 6 0 1 porman 2 6 0 1 porman 2 6 0 1 porman 3 6 0 0 1 porman 4 0 0 7 porman 4 0 0 7 porman 5 0 1 porman 5 0	Pilocarp. nit	1 gr.	. 4½d.
brom.	Potass. acet	0 51	0 1
Quin.hyd	", bicarb	0 21	0 01
Quin.hyd	" brom	0 10	0 1½
Quin.hyd 5 11½ 0 10½ , , , acid 7 4½ 1 1 , , sulph 4 9½ 0 8½ Resorcin 117 3½ 2 6 Salicin 2 11 0 5 Salol 1 10½ 0 3½ Santonin 2 4 0 4 , , salicyl 2 4 0 4 , , salicyl 0 11½ 0 2 Spt. ammon. arom. 0 5 0 1 , rect 0 5 0 1 , rich 0 1 , rich. 0 1 , rich	,, iodid	1 71	0 3
, , , acid		1 31	$0 2\frac{1}{2}$
Santonin — 2 6 Sod. iod 2 4 0 4 , salicyl 0 11½ 0 2 Spt. ammon. arom. 0 5 0 1 , rect 0 5 0 1 , vin. metb 0 1 — Sulphonal 4 0 0 7 Supp. morpb. 1 1s. 3d. per doz. Syr. aurant. 0 2 , fer. phos. c. quin. et strych. 0 3 0 0½ Tab. phenacet 1s. 9¼d. per doz. Theob. sod. sal 5 11½ 0 10½ Tbymol 4 8 0 8 Thyroid. sic 5 11½ 0 10½	Quin.hyd	2 114	0 104
Santonin — 2 6 Sod. iod 2 4 0 4 , salicyl 0 11½ 0 2 Spt. ammon. arom. 0 5 0 1 , rect 0 5 0 1 , vin. metb 0 1 — Sulphonal 4 0 0 7 Supp. morpb. 1 1s. 3d. per doz. Syr. aurant. 0 2 , fer. phos. c. quin. et strych. 0 3 0 0½ Tab. phenacet 1s. 9¼d. per doz. Theob. sod. sal 5 11½ 0 10½ Tbymol 4 8 0 8 Thyroid. sic 5 11½ 0 10½	,, ,, acid	7 44	1 1
Santonin — 2 6 Sod. iod 2 4 0 4 , salicyl 0 11½ 0 2 Spt. ammon. arom. 0 5 0 1 , rect 0 5 0 1 , vin. metb 0 1 — Sulphonal 4 0 0 7 Supp. morpb. 1 1s. 3d. per doz. Syr. aurant. 0 2 , fer. phos. c. quin. et strych. 0 3 0 0½ Tab. phenacet 1s. 9¼d. per doz. Theob. sod. sal 5 11½ 0 10½ Tbymol 4 8 0 8 Thyroid. sic 5 11½ 0 10½	,, sulph	4 95	0 85
Santonin — 2 6 Sod. iod 2 4 0 4 , salicyl 0 11½ 0 2 Spt. ammon. arom. 0 5 0 1 , rect 0 5 0 1 , vin. metb 0 1 — Sulphonal 4 0 0 7 Supp. morpb. 1 1s. 3d. per doz. Syr. aurant. 0 2 , fer. phos. c. quin. et strych. 0 3 0 0½ Tab. phenacet 1s. 9¼d. per doz. Theob. sod. sal 5 11½ 0 10½ Tbymol 4 8 0 8 Thyroid. sic 5 11½ 0 10½	Resorcin	17 35	3 6
Santonin — 2 6 Sod. iod 2 4 0 4 , salicyl 0 11½ 0 2 Spt. ammon. arom. 0 5 0 1 , rect 0 5 0 1 , vin. metb 0 1 — Sulphonal 4 0 0 7 Supp. morpb. 1 1s. 3d. per doz. Syr. aurant. 0 2 , fer. phos. c. quin. et strych. 0 3 0 0½ Tab. phenacet 1s. 9¼d. per doz. Theob. sod. sal 5 11½ 0 10½ Tbymol 4 8 0 8 Thyroid. sic 5 11½ 0 10½	Salicin	2 11	0 5
1	Saloi	1 105	
1	Santonin		2 6
1	Sod. 10d		
1	,, salleyl		
Sulphonal 4 0 0 7 Supp. morpb 1s. 3d. per doz. Syr. aurant 0 2 , fer. phos. c. quin. et strych. 0 3 0 0½ Tab. phenacet 1s. 9¼d. per doz. , , , , co 1s. 7½d. per doz. Theob. sod. sal 5 11½ 0 10½ Tbymol 4 8 0 8 Thyroid. sic 5 11½ 0 10½			
Sulphonal 4 0 0 7 Supp. morpb 1s. 3d. per doz. Syr. aurant 0 2 , fer. phos. c. quin. et strych. 0 3 0 0½ Tab. phenacet 1s. 9¼d. per doz. , , , , co 1s. 7½d. per doz. Theob. sod. sal 5 11½ 0 10½ Tbymol 4 8 0 8 Thyroid. sic 5 11½ 0 10½	,, rect		0 1
Supp. morpb 1s. 3d. per doz. Syr. aurant 0 2 — , fer. phos. c. quin. et strych. 0 3 0 0½ Tab. phenacet 1s. 9½d. per doz. Theob. sod. sal 5 11½ 0 10½ Tbymol 4 8 0 8 Thyroid. sic 5 11½ 0 10½	Culphonal		0 7
quin. et strych. 0 3 0 $0\frac{1}{2}$ Tab. phenacet 1s. $9\frac{1}{2}d$, per doz. ", ", co 1s. $7\frac{1}{2}d$, per doz. Theob. sod. sal 5 $11\frac{1}{2}$ 0 $10\frac{1}{2}$ Tbymol 4 8 0 8 Thyroid. sic 5 $11\frac{1}{2}$ 0 $10\frac{1}{2}$	Supp morph		
quin. et strych. 0 3 0 $0\frac{1}{2}$ Tab. phenacet 1s. $9\frac{1}{2}d$, per doz. ", ", co 1s. $7\frac{1}{2}d$, per doz. Theob. sod. sal 5 $11\frac{1}{2}$ 0 $10\frac{1}{2}$ Tbymol 4 8 0 8 Thyroid. sic 5 $11\frac{1}{2}$ 0 $10\frac{1}{2}$	Supp. morpo.	13. 34.	per doz.
quin. et strych. 0 3 0 $0\frac{1}{2}$ Tab. phenacet 1s. $9\frac{1}{2}d$, per doz. ", ", co 1s. $7\frac{1}{2}d$, per doz. Theob. sod. sal 5 $11\frac{1}{2}$ 0 $10\frac{1}{2}$ Tbymol 4 8 0 8 Thyroid. sic 5 $11\frac{1}{2}$ 0 $10\frac{1}{2}$	for phos c	0 4	
Tab. phenacet 1s. 9\d. per doz. , , co 1s. 7\d. per doz. Theob. sod. sal 5 11\frac{1}{2} 0 10\frac{1}{2} Tbymol 4 8 0 8 Thyroid. sic 5 11\frac{1}{2} 0 10\frac{1}{2}	quin et struch	0.3	0 01
,, , co 18 $7\frac{1}{2}d$. per doz. Theob. sod. sal 5 $11\frac{1}{2}$ 0 $10\frac{1}{2}$ Tbymol 4 8 0 8 Thyroid. sic 5 $11\frac{1}{2}$ 0 $10\frac{1}{2}$	Toh phenacet		
Theob.sod.sal 5 11 $\frac{1}{2}$ 0 10 $\frac{1}{2}$ Tbymol 4 8 0 8 Thyroid.sic 5 11 $\frac{1}{2}$ 0 10 $\frac{1}{2}$	rab. phenacet	1s 71d	per doz.
Tbymol 4 8 0 8 Thyroid.sic 5 11½ 0 10½ Tinct.iod.fort. 0 8 0 1½	Theoh sod sal	5 111	0 103
Thyroid. sic 5 11½ 0 10½ Tinet. iod. fort. 0 8 0 1½	Thymol	4 8	0 8
Tinct. iod. fort. 0 8 0 11	Thyroid, sic.	5 113	0 10%
mit 0 Cl 0 1	Tinet, iod, fort.	0 8	0 1
, , IIII U 0g U 1	", " mit	0 64	0 1

Legal Reports.

Supply of Teats.—At Belfast County Court last week, Pirelli, Ltd., 144 Queen Victoria Street, London, E.C., sued Mr. Samuel Gibson, druggist, 71-75 King Street, Belfast, for 61. 3s. 2d. for goods sold and delivered. It appeared that the defendant ordered a quantity of teats for babies from the plaintiffs, through Mr. Henry Levy, their local agent, but later he refused to accept delivery, holding that the articles supplied wero not what he ordered. The defendant, in the witness-box, said he had ordered a seamless polished black teat, but the articles ho was supplied with were made of a dull rubber substance, and in his opinion would not only choke a baby, but were also likely to poison it. Judge Craig dismissed the action on the merits.

camphorated oil.—At the Glasgow Central Police Court on January 19, before Stipendiary Neilson, Mr. Alexander M. Chisholm, dispensing chemist, 476 Cathcart Road, Govanhill, was charged with having sold eamphorated oil which contained only 15.36 per cent. of camphor instead of 23.2 per cent. as required by the British Pharmacopœia. Defendant pleaded guilty, and his solicitor explained that the deficiency was due to the fact that all his assistants of military ago had enlisted, and he had only young apprentices to assist him. In compounding the camphorated oil heat had been used improperly, and some of the camphor had evaporated in the process. He pointed out that it was an external remedy, and that the "prejudice" to the purchaser on the quantity bought was not more than \(\frac{1}{4}d \). A fine of 30s, was imposed.

Bismuth for the Allies.—During the hearing of an appeal of the Aramayo Franeke Mines, Ltd., from an order of Mr. Justiee Younger appointing a controller of the company, it was mentioned in the Court of Appeal on January 22 that one of the principal metal products of the company's mines, and one which is urgently required by the Allies, is bismuth, which before the war was refined in Germany only. Since the war Aveline Aramayo & Co., it was stated, had ostablished a factory in London for the purpose of refining it, with the result that refined bismuth ean now only be obtained in London. The company is seeking to remove the control and management to Switzerland, and the Board of Trade opposes on the ground that the operations might be conducted in such a way as would prejudice the vital necessities in the supply of war materials. On January 25 the Master of the Rolls dismissed the appeal. He said the English company had been a valuable aid to the British Government, and the loyalty of the directors was fully recognised.

Salving Linseed 011.—In the City of London Court on January 17, Thomas Slattery, a Thames waterman, Windsor Terrace, City Road, claimed 30l. for salving the barge Autumn, worth 100l., and containing 10 tons of linseed oil, worth 400l. which was being sent on a steamer by Owen Parry, Ltd. oil-refiners, Millwall. Plaintiff said he found the barge adrift, and he took it to a place of safety, where he pumped the water out for 2½ hours, preventing her from sinking. which she would have done. He had to break the lock of the pump. Defendants said that only a trifling service was rendered, and that 2l. which had been paid into court was enough. Judge Rentoul, K.C., remarking that there was deliberate perjury on one side or the other, found for the plaintiff for 5l. and costs.

S.V.R. Lost.—At the Cork Quarter Sessions on January 19, Thomas R. Lester & Co., pharmaceutical chemists, Cork, sued the Great Western Railway Co. of England and the City of Cork Steam Packet Co. to recover 151. 18s., damages for breach of contract. Plaintiff's case was that a drum of rectified spirit was consigned to them from James Burrough, Ltd., London. This was delivered to the railway company for earriage via Fishguard. When the drum arrived at Cork and was tendered for delivery, it was found to be empty, and a large hole had been plugged with paper. Delivery was refused. The drum was sent at owner's risk. The Great Western Railway Co. maintained there was no evidence of wilful misconduct, and as to the plug of paper, some persons who observed the leakage tried to ston it. If, as suggested by plaint ffs, a hole had been made to abstract the spirit, it would be much smaller than the size of a florin. The Recorder said the case was not free from doubt, and he granted a decree against the Great Western Railway Co. for the amount claimed. He dismissed on its merits the elaim against the local Steam Packet Co.

Prize Court Cases.—The Crown, in the Prize Court on January 22 asked for the condemnation as prize of 523 lb, of serpentary-root, seized on the steamship Louisiana;

4,254 lb. of senega-root on the s.s. California; 2,664 lb. of senega-root on the steamer Alexandra; and ten bales of sarsaparilla on the steamer Malmanger. All were consigned from America to S. V. Andersen's Eft. These drugs, said counsel for the Crown, are well known, and are in the Pharmacopeia. His Lordship found that the drugs were enemy property and property with an enemy destination, and under the provisions of the March 11-15 Order in Council, ordered the goods to be sold and the proceeds paid into court, to be dealt with after the conclusion of peace. An affidavit by Mr. R. M. Greenwood, assistant in the Treasury Solicitor's Department, stated that S. V. Andersen's Successors, Copenhagen, were intermediaries for letters between German firms and numerous firms in South and Central America. They telegraphed on behalf of Davidson Bros. Hamburg, and they forwarded drugs by parcel-post from Farbenfabriken vorm. Friedrich Bayer & Co., Leverkusen, to several firms in South America. In their code "maison" was to be used for steamship.

A Chemist's Will.—Vice-Chancellor Stewart-Smith, presiding in the Lancashire Court of Chancery, at St. George's Hall, Liverpool, on January 23, gave judgment on an adjourned petition, Coulson v. Public Trustee, having reference to the will of the late Charles Wheeler Field, wholesale chemist, Liverpool. Mr. Courthope Wilson (for plaintiff) said that during the adjournment a compromise, to which he would ask his Honour's consent, had been arranged between the parties interested under the will and in the testator's estate. The testator bequeathed certain legacies to members of his staff on condition that they had remained in his service until his death. In July 1914, however, the testator transferred his business to a private limited company, in which he himself held all the shares save one, and the question raised before the Court was whether the legatees could still be said to have been in the service of Mr. Field at his decease. By the terms of the compromise it was arranged to pay the plaintiff, who was specially named in a codicil to the will, the full amount which he had been bequeathed. The other legatees among the employés were each to receive 90 per cent, of the amount of their bequests. This arrangement would be advantageous to all the parties affected, as it was palpably desirable that the men having the management of the business should be treated fairly, and not be in any way aggrieved. Mr. Harold Mather (for the Public Trustee) endorsed the compromise, and consented to judgment in its terms. The Vice-Chancellor: In the circumstances of the case I give judgment in the terms of the compromise, the eosts to eome out of the estate.

Delivery of Shellac.—In the City of London Court on January 18, before Judge Rentoul. K.C., an action was brought by Mr. Alfred Isaaes, shellac-merchant, Commercial Sale Rooms, Mineing Lane, E.C., against Litchfield & Soundy, Ltd., wharfingers, 5 Water Lane, Great Tower Street, E.C., and Mr. Edmund Tanton, carman, 19 High Street, Wapping, for 14l. 5s. 2d. for short delivery of shellac ex the City of Calcutta. Plaintiff contracted with the defendant Tanton to carry the shellac to the Gramophone Co., Ltd., Hayes, from the wharf of the first defendants, and some of the shellae was either lost on tho way from the wharf to the Gramophone Co. or owing to the bad condition of the chests it had escaped at the wharf itself. Tanton's man gave a receipt for 100 chests, and certified that eighty-two of the chests were damaged. The Gramophone Co. claimed 14l. 5s. 2d. from the plaintiff as the value of the short delivery of the shellac; the question now was which of the two defendants was liable for the loss which had taken place. Litchfields suggested that the dispute should be dealt with by the London Shellac Trade Association, and that the real elaim was against the carman Tanton, and not against themselves. Tanton said that his earman pointed out the condition of the shellac at Gun Wharf, where he received it and he declared he delivered the shellae in exactly the same condition as he received it, and that therefore he could not be responsible for any shortage which had occurred, if there was any, which he denied. Plaintiff, in his evidence, said it was usual in the trade to sell on Calcutta weights, and although the contract stated that he bought according to public sale conditions of the London Shellac Trade Association, that was stated to protect the sellers. In his view wharfingers were responsible for the condition of the goods. Mr. Willoughby Williams, for the first defendant, said the wharfinger said that if the consignee wanted the voods in proper order he should give a coopering order, under which, for a charge,

and was bound to deliver goods as handed to him. That Tanton had not done. The inference was that there was a substantial leakage which probably covered many miles from the wharf to Hayes. A settlement was then arrived at between the parties, plaintiff abandoning his claim, no costs on either side.

Medicine-stamp Acts.—At Manchester, on January 18, Mr. J. W. Dorran, dispensing chemist, Stamford Street, Brook's Bar, was fined 131. 10s. for selling proprietary medicines without stamping them. Defendant said he had no idea he was not conforming to the regulations.

On January 19, C. Midgley, Ltd., 4 Exchange Street, answered four summonses for selling proprietary articles unstamped. The articles sold were Pavol pastilles and chilblain-lotion. Liability had been incurred by the circulars and labels. Two charges were withdrawn. The Magistrate who could be sufficient to the country of the country of the circulars and labels. lars and labels. Two charges were withdrawn, The Magistrate, who said he was convinced there had been no intention to defraud, and that the offences were of a technical character, inflicted fines in each of the other two cases, 51. and 21, 2s, costs.—At the same Court Mr. G. F. Bushby, dispensing chemist, was charged under six summonses with selling unstamped medicines. The articles in question wero "Bushby's Melline," "Trainer Atkin's Electric Embrocation," "Pile-ointment," and "Bushby's Soothingwater for Infants," In regard to some of these it was stated that the defendant was unaware that the articles incurred liability, and in respect to the others the Magistrate was informed that at the post-office they were short of medicine-stamps, and some of the dutiable medicines were left unstamped, and unfortunately an assistant sold them unwittingly. Fines as follows were inflicted: 2*l* for the embrocation, 2*l*. for the pile-ointment, 5*l*. for 2l. for the embrocation, 2l. for the pile-ointment, 5l. 10r the Melline, and 5l. for the soothing-water, with 2l. 2s. costs.—Mr. Luke Crabtree was on the same day fined 2l. each in three cases of selling unstamped medicines.—At Liverpool, on January 23, Mr. Henry Peet, dispensing chemist, Ranelagh Place, was summoned on five charges of infringing the Medicine Stamp Acts. The articles purchased included Lincoln prescription for sea-sickness, McMaior's mixture for disorders of the liver, universal McMajor's mixture for disorders of the liver, universal blood-tonic (described as a cure for scrofula), and balsamic-cough-mixture. Mr. Walker, who prosecuted for the Commissioners, said the six months' delay in bringing up the cases was unavoidable. The Chairman said he had known Mr. Peet for a quarter of a century, and had been associated Mr. Peet for a quarter of a century, and had been associated with him in public life, and was aware of his desire at all times to do what was right. No one would regret more than his colleagues in public life the fact that Mr. Peet had been taken there. The offences that had been so inadvertently committed would be met by fines of 5s. in the first two cases and 20s. in the other three, and 2l. 2s, costs would be allowed.—C. Midgley, Ltd., were stamped of insufficiently stamped. The purchases were stamped or insufficiently stamped. cough-mixture chilblain-lotion, blood-purifier, Pavol pas-tilles, and tic-mixture. In two cases the stamps were insufficient, the other medicines were unstamped. Mr. Rudd, for the defence, said the business had been carried on for 100 years with a high reputation. The instructions sent out by the Excise authorities are extremely vague, and there is some excuse for chemists not knowing whether they have to stamp the preparations. In the cases of in-sufficient stamping, this was done at a very busy time at headquarters, and afterwards when the mistake was discovered extra stamps were sent to the shops to be affixed. The tic-mixture was out of date, and the firm were under the impression that all the bottles had been destroyed. These were technical offences committed without any intention to defraud, and had arisen owing to the difficulties of conducting business at the present time. The Bench held that the offences would be satisfied with a penalty of 20s. in each case, with two guineas costs.—Nine separate sum-monses were preferred against Stephen Stephenson, Ltd., monses were preferred against Stephen Stephenson, Ltd., chemists, in respect of the sale of goods unstamped in eight cases and insufficiently stamped in one case at their premises at 98 Kensington and 270 Kensington. The articles purchased were Dr. Hall's life tonic aromatic diarrhea-mixture, two kinds of corn-preparations, and two kinds of gripe-water. Mr. Rudd, for the defence, urged that it was not intended to sell the goods, and owing the the chartery of staff the affects of the gently interpret. to the shortage of staff the affairs of the establishments are not attended to as well as they might have been and things have been overlooked. The Bench fined the defendants 60s. in two cases and 20s. in the remaining seven cases, with two guineas costs.—The Giles Cash Chemist Co. were summoned on eight charges under the Medicine Stamp Acts, to which they pleaded guilty. The inspectors purchased three bottles of cough-cure, kill-pain embrocation cure for rheumatism, and curative elixir for indigestion, which were unstamped. Mr. Riley, for the defence, said that at this time and during the war great

difficulties had arisen in the conduct of Mr. Giles's business. He employed a certificated chemist over military age at each of his shops, but for the rest had to depend upon girls. The shops are in poor-class neighbourhoods, where the purchase of shilling bottles of medicine is rare, and the stamping of the bottles had been overlooked. The Bench imposed a penalty of 60s. in the first case and 20s, in the seven remaining cases, with two guineas costs.

New Companies and Company News.

P.C. means Private Company and R.O. Registered Office.

Brownlie & Green, Ltd. (P.C.).—Capital 30,0001. Objects: To carry on the business of engineers, electricians, chemists, etc.—R.O., 2 Austin Friars, London, E.C.

PROBAK, LTD. (P.C.).—Capital 12,0001. Objects: To carry on the business of manufacturers of and dealers in hardware, brushes, earthenware, glass, drugs, perfumery, soap, and toilet requisites, etc. Solicitors, Beyfus & Beyfus, 69 Lincoln's Inn Fields, London, W.C.

69 Lincoln's Inn Fields, London, W.C.

JOHN TILLIDGE & Co., LTD. (P.C.).—Capital 5,000l.
Objects: To carry on the business of chemists, druggists,
oil and colourmen, manufacturers of and dealers in adhesives, varnishes, etc. The first directors are R. J. Hilton,
17 St. Dunstan's Hill. E.C., merchant, and D. B. Macdonald, Rothley, near Leicester, technical chemist. R.O.,
Imperial Buildings, Salford Street, Leicester.

Lankshear, Wickstead & Co., Ltd. (P.C.).—Capital 10,000l. Objects: To take over the business of chemical manufacturers and merchants, formerly carried on as "Lankshear, Wickstead & Co." at 17 St. Ann's Square, Manchester, and to carry on the same and the business of manfacturers of and dealers in dyestuffs, bleaching-powders, requisites for the soap, starch, and oil trades, etc. R.O., 17 St. Ann's Square, Manchester.

BOWROSE SUCTION Co., LTD. (P.C.).—Capital 1,0001. Objects: To carry on the business of manufacturers and retailers of dental and surgical instruments, appliances and aids, and in particular to work and exploit a patent or patents for a dental inset suction, and to enter into an agreement with F. Bowerman and N. Cohen. The first directors are F. Bowerman, Swindon, dental operative, and N. Cohen, Swindon, dental mechanic.

SURISTONE, LTD. (P.C.).—Canital 6001. Objects: To take

SURISTONE, LTD. (P.C.).—Capital 6001. Objects: To take over from L. G. Surie and J. Kuipers the machinery, fittings, and stock of manufactured goods at 9 and 91 and 1D Aldgate Avenue, E.C., and to adopt an agreement with the said vendors and J. H. Reeken, and to carry on the business of manufacturers and sellers of the article known as "Suristone" and all kinds of casein products. The subscribers are L. G. Surie and W. T. Fall. R.O., 5 Lloyd's Avenue, Fenchurch Street, London, E.C.

NATIONAL DRUG Co., LTD.—Mr. G. E. Corfield, Balfour House, London, E.C., ceased to act as receiver on January 10

Coleman & Co., Ltd.—A special sitting of Norwich County Court was held by Judge Mulligan, K.C., on January 12, for the hearing of a motion arising out of a deed of arrangement executed by William Coleman in February 1911. Proceedings had been brought by Messrs. Culley and Dyball, who are trustees under the deed of arrangement executed by William Coleman, of Brundall, manufacturing chemist, in 1911. against Messrs. Sewell & Buxton, to recover blocks of shares alleged to have been improperly obtained from Coleman. The trustees having discontinued these proceedings, Coleman & Co., Ltd., creditors under the deed, now applied that the trustees should personally pay the costs of the litigation and also the costs of this application. The greater part of the sitting was devoted to reading minutes of meetings of the directors of the company, letters between the parties, and affidavits. Mr. Brackenbury, the secretary of the company, and Mr. Blair, solicitor of London, were cross-examined on their affidavits, and, after the adjournment for lunch, Mr. Hastings (for applicants) announced that a settlement had been arrived at. His Honour said this was a very pleasing settlement of a very troublesome case. The position of Mr. Coleman had long been well known in that Court. He was not surprised that there was a sufficient explanation of the matter. He would not be at all surprised to know that Mr. Sewell and Mr. Buxton had been the salvation of the company. The motion was withdrawn.

Marriages.

HANRAHAN-O'LEARY .- At the Church of the Immaculate

Hanrahan—O'Leary —At the Church of the Immaculate Coneeption, Tallow, on January 9, by the Rev. Canon Meagher, assisted by the Rev. Thomas Tobin, Fermoy, and the Rev. M. Carroll, Tallow, Alfred L. Hanrahan, Ph.C., to Eily, only daughter of Mr. T. O'Leary, Tallow.

Harrison—Wood—At Broomwood Road Wesleyan Methodist Church, Clapham Common, London, S.W., on January 20, by the Rev. Eccleston Potts, Wesley Waide Harrison, pharmacist, son of the late Alf. Harrison, Harrogate, formerly of Harrison & Waide, printers, Leeds, to Grace Maude, daughter of Mr. John R. Wood, 66 Sarsfeld Road, Balham, S.W.

Road, Balham, S.W.

HODGKINSON—DRAPER.—On January 5, during leave, Charles Richard Hodgkinson, R.G.A., elder son of Professor W. R. E. Hodgkinson, ex-Chairman of the London Section of the Society of Chemical Industry, and Mrs. Hodgkinson, to Lena, elder daughter of Dr. and Mrs. T. Makin Draper, The Limes, Rickmansworth, Herts, late of Watlington, Nor-

Kirby—Norwood.—At Christ *Church, Turnham Green, London, W., on January 17, Second-Lieutenant H. G. Kirby, ohemist and druggist, 8th Sherwood Foresters, to Winifred, second daughter of Mr. and Mrs C. Norwood, of 23 Heathfield Terrace, Turnham Green, W.

Deaths.

CLARKE.—At Ellington Street, Barnsbury, London, N., on January 1, Mr. Richard Clarke, chemist and druggist, aged sixty. An inquest was held on January 19, when it was stated that Mr. Clarke was in the service of Mr. G. E. Butler, chemist and druggist, Stone Street, Tottenham Court Road, W., and had for some time been depressed through the death of his only son at the Front.

Fritzsche.—At Leipzic, Germany, on December 21, Mr. Ernest T. Fritzsche, senior director of Schimmel & Co., cssential-oil distillers, Milititz, near Leipzig, aged sixty-five. Girson.—At the Medical Hall, Ballybrack, on January 14, Minnie Gibson, wife of Mr. William Gibson, Ph.C. Giron.—At 63 High Street, Tranent, on January 20, Mary Forrest Watt, wife of Mr. Michael Gilroy, chemist and druggist, and only daughter of the late John Watt, 13 Hawthorn Bank Terrace, Leith.

Junes.—At 168 High Street, Lewisham, London, S.E., on January 10, Mr. Joseph Green Junes, chemist and druggist, aged thirty-seven.

druggist, aged thirty-seven.

MITCHELL.—Recently, Mr. Chas. Edward Mitchell, chemist and druggist, of Chorley Old Road, Doffcocker, Bolton, at the age of fifty-seven. The late Mr. Mitchell had been connected with pharmacy in Bolton for about forty years, serving his apprenticeship with the late Mr. T. Pownall, afterwards being for a long period with the late Mr. John Teebay. He commenced business on his own account at Doffcocker, about circle years.

Roberts.—Recently, Mr. Wm. Henry Roberts, chemist and druggist, for seventeen years manager at Watford to Boots, Ltd., aged fifty-three.

Died on Service.

EXLEY. —Second-Lieutenant George Allan Exley, R.F.C., reported to have been killed on active service on Janureported to have been killed on active service on January 14, at the age of twenty-three, was a chemist and druggist and the son of Mr. John Exley, Ph.C., of Farr Royd, Burley-in-Wharfedale. He joined the Army in August 1915 as a despatch-rider in the Royal Engineers, and subsequently received a commission in the K.O.Y.L.I. He was afterwards transferred to the Royal Flying Corps, and had seen much aerial fighting at the Eront. He would He was afterwards transferred to the Royal Flying Corps, and had seen much aerial fighting at the Front. He would have eventually joined his father's firm, G. Exley & Son, pharmaceutical chemists. Hunslet Lane, Leeds.

FRYER.—Lieutenant William Basil Fryer, South Staffords, the Bayal Flying Corps, was accidentably killed.

attached to the Royal Flying Corps, was accidentally killed on December 26. Lieutenant Fryer served his apprenticeship with Mr. G. F. Cornhill, chemist, Stafford Street, Walsall, and three years afterwards he was employed by a firm of chemists at Wolverhampton. When war broke out he was with Doublets & Gorial and the was with Deighton & Smith, chemists, of Bridgnorth. Lieutenant Fryer, who was twenty-two years of age, also took a keen interest in engineering and farming. He was well known and highly esteemed both in Bloxwich and Walsall.

MASON.—Private Robert Lee Mason, Machine Gun Section, formerly with Mr. George Barker, chemist and druggist, of High Street, Hampton, has fallen in action in Salonica.

Personalities.

Mr. Henry Meynell, chemist and druggist, High Street, Tenterden, Kent, has been re-elected Secretary of the Tenterden Tradesmen's Club.

MR. VICTOR J. WOOLLS, chemist and druggist, of Cecil Square, Margate, has been appointed Organist of the Union Lodge of Freemasons.

Mr. Guido Jung, of the firm of Fratelli Jung, essential-oil exporters, Palermo, has received the Italian Military Medal for bravery in action.

Mr. William Robinson, Cockermouth, retired chemist, who died on June 1, left estate of the gross value of 5,897l. 15s. 5d., of which 3,821l. 3s. 11d. is net personalty.

Nellie, Nina, and Peggy Palmer, daughters of Mr. J. Spencer Palmer, pharmacist and dentist, Thornbury, have been successful in passing the L.R.A.M. examination held in London this month. All passed at their first attempt. The youngest, Peggy, is sixteen.

Dr. A. J. Barnes, Ph.C., who contributes the 2001. war tale to this Winter Issue, entered pharmacy twenty-one years are apprentice in the

ago as an apprentice in the Harcourt Pharmacy, Dublin, of which he is now proprietor. Five years later he took the Medical Diploma of the Apothecaries' Hall of Ireland, having studied at the Catholie having studied at the Catholic University School of Medicine, Dublin, the School of Physic in the University of Dublin, the Schools of the Royal College of Surgeons of Ireland, the Coombe and Adelaide Hospitals, Dublin, and tho Royal Infirmary, Edinburgh. In 1902 he was elected a Member of the Pharmaceutical Society of Ireland maceutical Society of Ireland,



maceutieal Society of Ireland, and has now a seat on the Council, having been elected at the annual meeting last October. Previously he was one of the Society's examiners, and served for five years in that capacity. But he does more on the commercial than on the medical side of pharmacy, and is a pioneer of P.A.T.A. work in Ireland, having in 1909 founded the Dublin Retail Drug Association, of which he was President in 1915. He has been Vice-President of the P.A.T.A., and is still a member of its Council, where he keenly watches Irish interests. Dr. Barnes is an authority on trade-marks, of which he possesses several in connection with his own proprietaries. The tale which he tells in this issue reflects circumstances and conditions with which we are all more or less familiar, but it may surprise our readers to know that less familiar, but it may surprise our readers to know that tale-writing is not usual with the doctor, who finds prize competitions more to his taste.

Gazette.

Partnership Dissolved.

Lewin, Frances E., and Lewin, R. E. R. M., 19 Bath Street, City Road, London, surgical-bandage manufac-turers, under the style of Newell & Co.

Bankruptcy Acts.

RECEIVING ORDER AND ADJUDICATION.

Ballinger, A. J., Cinderford, Gloucestershire, chemist and optician.

ADJUDICATION.

CHAMBERS, J., 78 Belle Vue Road, Leeds, formerly 22 Montpellier Walk, Cheltenham, chemist's assistant, formerly chemist.

To COLOUR ROSES BLUE dissolve in 100 c.c. (3iiiss.) of water 2 grams (sss.) of potassium nitrate (saltpetre) and the same of blue aniline dye. Cut the stems and insert the roses in the solution contained in suitable tubes or holders.

THE SCHOOL OF ORIENTAL STUDIES, Finsbury Circus, London, E.C., was opened this week for students in Oriental languages. The initiation in London of the movement for languages. teaching Eastern languages has been referred to in our columns on previous occasions.

The British Pharmacopœia, 1914.

Publication of the fifth issue of the British Pharmacopæia was delayed by the Germans, who had kept Sir Donald MacAlister, K.C.B., Chairman of the Pharmacopæia Committee, under surveillance from August 4 until Christmas, 1914. As soon as Sir Donald returned to this country the British Pharmacopæia, 914, was published. It was duly expounded, reviewed, and criticised, but some of the more intimate points in it have been woefully neglected, so that we are glad to have the opportunity of publishing some uncensored correspondence in regard to it

Dear Gee,—You ask what I think of the new B.P. Much, very much. Yet it is full of pin-pricks. While recognising the good points of the book, let me draw your attention to some of its faults. I hope I'm not a jaundiced critic, but one expects perfection in a compilation that bears the awe-inspiring words "By Authority." Probably there is not another work in the whole world that costs more in time, labour, and money than the British Pharmacopœia; yet it appears impossible to produce an issue without the necessity of corrigenda following early on publication.

I expect, like most readers, you have skipped the preface, but it is interesting to compare it with its predecessors. At the outset you are pulled up by the matter on the back of the title-page:

NOTICE

By Section 2 of the Medical Council Act, 1862, the exclusive right of publishing, printing, and selling the British Pharmacopæia is vested in the General Council of Medical Education and Registration of the United Kingdom.

This bald announcement grates on our ears, and suggests "slimmess" where one does not like to think its existence possible. The printing of the section in full would remove this and show to the world at large that the Council are free of all thought of making money. I give you the section in full:

RIGHT OF PRINTING PHARMACOPEIA VESTED IN COUNCIL. The exclusive right of publishing, printing, and selling the said Pharmacopeeia shall vest in the said General Council, subject to this proviso, that it shall be lawful for the Commissioners of the Treasury from time to time to fix the price at which copies of the said work are to be sold to the public.

Is it not about time the Commissioners of the Treasury were giving some consideration to the price of the book? There has been a steady rise in the charge with each issue since 1864, the 1914 selling at 10s. 6d.; yet paper and printing cost less in 1914 than in 1864. There may be something to justify the increased charge; I fancy Sir Donald has said something about that, and now he has the opportunity of making good. It is commonly believed that the idea of an Imperial Pharmacopæia originated with the 1898 issue, and the 1914 preface strengthens such belief. But this is not the case. In 1864, when the first British Pharmacopæia was issued, the Medical Council cautioned

"all medical practitioners, whether at home or in the Colonies, or in public services, that, in order to exercise their profession safely, it is incumbent on them to make themselves familiar with the changes effected by the present work."

Do the prescribers of the present day show that they are conversant with the changes effected by the 1914 issue? I trow not. On reading the fourth paragraph of the preface (page viii), you will notice that the cryptic phrase of the 1898 preface, "more distant portions of the Empire," has been changed to "Dominions overseas." Does not good English require "over seas"? This lately coined word "overseas" should be used as an adjective. Syntax, however, is not over-strong in the book. For instance, the collective noun "Council" on the first page of the preface is treated as singular, but the first Medical Act, 1854, regards the Council as "they." I know it is hard to reconcile the Council and Parliament, but if I were carrying out this business I

would follow the statutory example; wouldn't you? The first paragraph on page ix ends with the following:

"In many instances in which drugs of vegetable origin are used in a powdered form, the histological characters of the powder are given when by chemical testing alone the identity of the article in question could not be certainly determined."

"Certainly determined" offends the ear. If "determined" requires qualification, "determined with certainty" is certainly more euphonic than "certainly determined." Again, why is the word "italics" in the next paragraph italicised? And why waste type and space by repeating the paragraph on p. 1 before Acaciæ Cortex? Was it wise to adopt the courteous suggestion of Professor Remington to insert in the index abbreviations of Latin titles? and is the hope that "the list given in the Appendix will probably be found useful to dispensers and others, especially those in foreign countries, who have to interpret the abbreviations occurring in the prescriptions of British practitioners," not illusory? The nineteen pages of Appendix XVII. are merely a repetition of what appears in the index. Possibly a grateful foreigner, in return for this favour, will be readier to satisfy himself "where an unusually large dose appears to be prescribed . . . that the prescriber's intention has been correctly interpreted," as is unblushingly stated on page xi. How this is to be done is a conundrum. Evidently the author of the statement is under the impression that patients march straight from the surgery to the pharmacy, so that the dispenser has no difficulty in getting into touch with the prescriber, and that prescribers are all gentlemen, and only too willing to help. You and I know differently. What is the dis-penser in Edinburgh or in Petrograd to do with the "unusually large dose" in the prescription of the London specialist? How this statement, which makes its appearance in a Pharmacopæia for the first time, has not raised a storm in the ranks of pharmacy is strange. All admit that it is morally incumbent on everyone to check the errors of his erring brother, but there is no Act on the Statute Book imposing such a duty, and it is outside the powers of the Medical Council to protect prescribers from the consequences of their errors by coolly trying to place the prescriber's responsibility on the shoulders of the dispenser. If a fatality should follow an "unusually large dose," who is to be the culprit? Some of us are old enough to remember the unjust censure of a chemist by a jury in 1873 for refusing to dispense halfounce doses of tincture of digitalis.

The paragraph (page xii) defining the water-bath has had added to it a definition of a "steam-bath":

"The term 'steam-bath' is used when it is desired to employ the heat of steam at a temperature of not less than 100°."

That is, the minimum temperature alone is given. In the 1867 and 1885 issues both minimum and maximum temperature were given—212° F. to 230° F. As yet there is no definition of the "sand-bath," which you will notice is ordered in Unguentum Hydrargyri Nitratis. The monograph reads:

"Dissolve the Mercury in the Nitric Acid [in a suitable vessel understood] without the aid of heat, shaking gently from time to time."

I have heard captious critics argue that here the compounder is ordered to shake himself gently from time to time, but such is not the meaning.

"Heat the prepared lard and olive oil together [in a suitable vessel understood] on a sand-bath, so that the mixture when transferred to a heated earthen jar, capable of holding ten times the quantity, is at a temperature of about 150°."

"Earthen" here does not mean "frail." It means the "porcelain vessel" of the 1885 monograph—the "earthenware jar" of the 1898. But I wander! In the paragraph where reference is made to "The International Agreement" (page xvi) it is stated:

"The British practice of measuring liquids by volume and solids by weight has been maintained."

This is not in accordance with fact. The convenient "solids by weight, liquids by measure" rule is not

invariably followed. For instance, the strong acids in the dilutions (with the exceptions of acid. nitro-hydrochlor. dil. and acid. sulph. aromat.) are ordered by weight, while phosphoric acid in the syrups, and hydrochloric acid in extract. cinchon. liquid., liq. ferri perchlor. fort., and liquor zinci chloridi, are ordered by volume. Olive oil in ointments, in emplast. plumbi, and liniment. camphor. is by weight; in emplast. calefaciens and liniment. calcis by volume. Castor oil in collodium flexile and liquor cresol. saponat. is by weight; in liquor epispasticus, linimentum sinapis, and mist. olei ricini by volume. Honey in mel boracis is by weight, in the oxymels by volume. Glycerin is sometimes weighed, sometimes measured. Liq. plumbi subacet. fort. is measured for the dilution, weighed for the ointment. Even water is ordered to be weighed in unguent. potass. iodidi. page xvii "more casy" appears as the comparative degree of the adjective "easy." The spelling may be accomplished more easily so, but grammarians usually compare

the word easy, easier, easiest. It is easy to find fault, but a reading of the preface suggests that its writer has not found the task an easy one. Evidently he has felt handicapped by the prefaces

of previous issues and the terrors of carping critics.

Here the first letter ends, and D. Dee, the writer, proceeds to comment upon the B.P. monographs. These comments we place alphabetically.

Letters on the 1914 B.P.-2.

ACACIÆ CORTEX.—The monograph reads "Acacia Bark is the dried bark of Acacia arabica, and also the dried bark of Acacia decurrens." Why this redundancy? Compare with Alstonia and Serpentary. "Alstonia is the dried bark of Alstonia scholaris and also of Alstonia constricta." "Serpentary Rhizome is the dried rhizome and roots of Aristolochia Serpentaria and of Aristolochia reticulata." The last is the best and all that is required. But return to acaciabark. It is to be "obtained from wild or cultivated trees not less than seven years old, and, after being dried, kept for one year before use." One ean understand a bark collector knowing the age of cultivated trees, but how is he collector knowing the age of cultivated trees, but how is he collector knowing the age of cultivated trees, but how is he to get at the age of wild ones without cutting down? And having done this, and finding the tree only five years old, what's to be done? Note, it is the tree that is to be seven years old, not necessarily the bark. Turn to Cascara. "Cascara Sagrada is the dried bark of Rhamus Purshianus, collected at least one year before being used."

ACACIE GUMMI.—"Almost entirely soluble in water." Have you met a good gum that was not entirely soluble?

ACETANLIDUM.—"A cold saturated aqueous solution does not affect solution of litmus." What does this mean? A cold-saturated solution or a cold, saturated solution or what?

what?

ACETONUM.—"Obtained by the dry distillation of calcium acetate or barium acetate." Distillation is usually dry work, but probably destructive distillation is what is meant; but why not simply say "of calcium or barium acetates"?

ACETUM CANTHARIDINI.—This, like Linimentum Chloroformi and Ung. Gallæ cum Opio, irritates me. It is poor pharmacy to use up one galenical in the preparation of another if the latter can be just as readily made from the foundation. Common-sense says, use more glacial acetic acid (if a certain percentage of acid is essential to the activity of the vinegar) and make up with water to the required volume.

ACETUM SCILLE.—Please look at the note at the end of this monograph, viz.: "This preparation is of approximately twice the strength of the Acetum Scillæ of the British Pharmacopæia 1898." What is the object of the first "of"? Let me hear what part of speech you make "of" and "approximately."

approximately.'

"approximately."

ACDUM ACTICUM.—"When neutralised with an alkali," yields the reactions "characteristic of acetates." Now what is the object of wasting type by qualifying the neutralising "with an alkali"? In no other monograph of the acids, so far as I can see, are the words "with an alkali" inserted. In the preface we are told that "details of procedure are now left to the skill and judgment of pharmacists and of analysts, who are assumed to be fully trained." This monograph shows that this is not so, for anyone who uses anything else than an alkali for neutralising is a hass. ising is a hass.

ACIDUM ACETICUM GLACIALE is stated to crystallise "when sufficiently cooled." Most extraordinary. Does not water do the same thing—hydrogen the same thing—in fact, everything that is crystalline the same thing?

The B.P. is a most humorous book. No pharmacist need spend money buying "Punch"; such is sheer waste if one possesses the 1914 B.P. "By Authority." I have found a lot of fun can be got at a "craft-smoker" by reading out the monographs of Acid. Acetic. Glaciale and Acid. Citric., and putting the question, "Why are the titles 'Glacial Acetic Acid' and 'Citric Acid' repeated in the characters and tests of these two, and a similar rule not followed in the monographs of the other acids?" It is amazing the variety of answers given. But let us get on. ACIDUM ARSENIOSUM has still the formula As,O,, but its ally Antimonium Oxide has returned to its 1885 formula, Sb,O₃, and so has Potassium Permanganate to KMnO₄.

ally Antimonium Oxide has returned to its 1885 formula, Sb₂O₃, and so has Potassium Permanganate to KMnO₄. Another proof that "all return to their first loves."

ACIDUM CHROMICUM is stated to be "very soluble in ether," but a little further on the monograph warns us "that in contact with relatively small proportions of ether, sudden combustion or explosion may ensue."

ACIDUM HYDRIODICUM DILUTUM "may be obtained by the action of hydrogen sulphide on a solution of iodine." Iodine, the B.P. states, is "very slightly soluble in water, more soluble in alcohol; readily soluble in solution of potassium iodide, in ether, and in carbon disulphide." What "solution of iodine." then, do you think, is referred to, and should the product be purified by "subsequent distillation," as is stated under Acidum Hydrobromicum dilutum and Acid. Hydrocyan. dil., or is distillation unnecessary, as apparently in Acidum Nitricum?

ACID. Hydrocyan. Dil. has now the synonym "Dilute

ACID. HYDROCYAN. DIL. has now the synonym "Dilute Prussic Acid." What effect may this addition have on the reading of the 1908 Poison Act? What is prussic acid, HCN or an aqueous solution of HCN? In Part I. of the Poison Schedule there appears "Prussic acid, and all preparations or admixtures containing 0.1 or more of prussic acid." And in Part II., "Almonds, essential oil of (unless deprived of prussic acid)." But in Part I. there also appears "Cyanide of potassium, and all poisonous cyanides and their preparations." Hydrocyanic acid is a poisonous cyanide (cyanide of hydrogen), and here there is no mention of quantity. Do preparations containing less than 0.1 per cent. of HCN not come under the restrictions of Part I., or does the Act mean 0.1 pcr cent, of what is popularly known as prussic acid—an aqueous solution of the acid? If prussic acid be HCN, then what are the sulphuric, nitric, and hydrochloric acids of Clause 2 of Section 5? Surely not the anhydrous acids, but the aqueous solutions of them. "What is prussic acid?" may yet become a ticklish question when some poor beggar gets hauled up for a coughmixture containing a little Syrup. Pruni Virg. as a flavouring agent.

ACIDUM LACTICUM (last sentence but one) "is to show no

ACIDUM LACTICUM (last sentence but one) "is to show no turbidity, whether permanent or transient, when the acid is added drop by drop to twice its volume of ether." Whether this whethering?

ACIDUM NITRICUM DILUTUM is honoured by a note drawing attention to its strength compared with that of the . 1898, and in ease there should be any dubicty about its strength the statement is repeated that it "contains 10 per cent. by weight of hydrogen nitrate, HNOs." nitrate, HNO3.

ACIDUM PIPRICUM is also benoured with a "constitutional" formula, C₆H₂(NO₂)₃OH.

ACIDUM TANNICUM.—I wonder what the special fermenta-

ACIDIM TANNICUM.—I wonder what the special fermentation is that galls have to undergo before their tannin can be extracted by water-saturated ether, as is stated in this monograph. It used to be customary to expose the powdered galls to a damp atmosphere for two or three days before extracting, but it is very doubtful if fermentation took place during the exposure. Longer exposure of damped galls resulted in conversion of the tannin present into gallic acid. acid.

LANOLIN.—What is lanolin? The 1914 B.P. says it is "Adeps Lanæ Hydrosus—Hydrous Wool Fat." Is it not nonsense, then, to give "Anhydrous Lanolin" as a synonym of Adeps Lanæ—Wool Fat? The hydrating of Wool Fat makes it Lanolin; the removal of the water from the Lanolin does not make the product anhydrous Lanolin (there can be no such thing as anhydrous lanolin), but wool fat.

ADEPS PREPARATUS is now "the purified internal fat of the hog," Seeing all fat is internal, official "Adeps" is not necessarily the abdominal fat as formerly, but any hog fat which answers the characters and tests given.

More anon.

THE ALARMING GROWTH of the drug evil in the United States is attributed to the wholesale drug-houses by the State Association of Judges and Justices. The wholesalers state that much of the heroin and morphine which is sold to Canada is afterwards exported to England.

The Minor at 36.

I OBTAINED the Apothecaries' Assistant's certificate a few years ago, but, not being satisfied with it, continued my studies, and after two years' hard work and a short course at a London college, I presented myself last June for the first day, and came down. Thinking this was due to the first-time nervousness I tried again in September, but came down again, although I found out that my weakness was chemistry. Having obtained two of the finest books Loudd cown again, although I found out that my weakness was chemistry. Having obtained two of the finest books I could get—viz., Mollwo Perkin's "Analysis" and Roscoe and Harden's "Chemistry"—I put in three months' good work on half-days and evenings, and presented myself in January for the first day. We were sent to Practical Chemistry, and my work consisted of the following:

1. Analyse substance No. 13. [This I found to be an alkaloid.]

alkaloid.]

alkaloid.]

2. Solution of hydrobromic acid. [The B.P. states sp. gr. 1.07.] Two mils required for complete precipitation 26.6 mils of N/10 solution of silver nitrate. Yielded no characteristic reactions for barium, chlorides, phosphates, or sulphites, and only a slight reaction for sulphates. N/6 solution of AgNO, was provided.

I got on splendidly with my work, and was comfortably finished when the books were collected.

In the afternoon I went to Dispension, and was handed.

In the afternoon I went to Dispensing, and was handed the following:

	Ung. eucaly		•••		•••	•••	50 grms.
	Ft. ung. Mo. d	icte.					
	Bismuth. sal	icyl		•••			gr. xv.
	Sodii bicarb.	***					gr. xv.
	Mucil. traga	C		•••	•••		ziss.
	Aq. chlcrof.	ad		•••			31.
-	Ft. mist. Mitte coch. mag. ij. ter Morphin. tai In pil. Mitte x ni nocte.	die. rt r. Varni	sh.			,	8 mgms.
	Ol. ricini						3iij.
	Ol. cinnam					•••	mi.
	Aquam ad			•••			
		• •••	•••	•••	•••	•••	2.0.
	Ft. haust.						
	Suppos.	acid. tan	nic.,	B.P.	Mitte	vj.	

One as directed.

I got my ointment nice and smooth. Made some mucilage of tragacanth, and got the mixture perfect. I asked the examiner to check the morphine tartrate which I weighed on the balance. The emulsion went all right with acacia. I made for seven suppositories, which turned out without

a speck in them. The examiner complimented me on keeping my pills white, also the suppositories, and I came out feeling very satisfied with my day's work. On calling next day for the result, I received the welcome open envelope containing a notice to present myself the following day at 9.55 for the oral.

Arriving in the examination-hall, I was sent to Chemistry, the subject I was most afraid of. Here I was asked to write out all I knew about the conservation of energy and Avogadro's Law. My hand was a bit shaky, but I managed what I was writing about. Then followed questions on H,O,, manufacture, etc.; oxides of mercury, how prepared; iron preparations oxides, etc.; then on to organic work, including chloroform, iodoform, and hydrocyanic acid.

My next call was to Materia Medica, in which I was asked to recognise about twenty specimens, including asked to recognise about twenty specimens, including rhatany (both kinds), calamus, alkanet, gum ammoniacum, senna leaves and pods (both varieties), guaracum, colocynth, elaterium, and opium (three varieties): how collected, percentage of active ingredients, B.P. standard? Ipecacuanha (three varieties): how distinguish, percentage of alkaloid?

(three varieties): how distinguish, percentage of alkaloid? My next subject was Prescription-reading. I had to read about eight. Pointed out an overdose of liq. strych., and in one was ordered liq. hydrarg. perchlor. gr. ij. I told the examiner I should put in two grains of hydrarg. perchlor., as it was in a 12-oz. lotion. Then about twenty doses, including ext. nuc. vom. and liq., liq. atropini, liq. trinitrini, liq. arsenicalis, tinctures and extracts. I was given a calculation to work out, also a prescription to write into full Latin, the directions being:

The Application. To be applied to the affected part with a camel-hair brush night and morning.

After finishing this, I was told to go and sit down, and began to feel more comfortable. Botany came next. I began to feel more comfortable. Botany came next. First I was shown a bunch of umbelliferous fruits and asked to describe them, then the Christmas rose. Number of stamens in the different natural orders, and placentations of ovaries? I was then asked to describe two slides. One was a transverse section of a monocot, the other a leaf section. Vascular bundles: what are they composed of and how situated? Describe the structures of the leaf. After this I went to my last subject, Pharmacy, and was

shown two compound tinctures, which I spotted; also spirit. ammon, arom., lin. terebinth., liq. bismuth. et ammon. cit., syrup. sennæ, tinct. benz. co., tinct. myrrh., and tinct. limonis. How are all these made, and strengths of alcohols used? Then followed about two dozen strengths, all on the poisonous tinctures and extracts, and I was told I could go. After waiting about ten minutes I was told I had passed,—(181/64.)

Sphagnum Moss.



MR. ALEXANDER McCUTCHEON, The Dispensary, Kingussie, has taken a leading part in the organisation of the collection of sphagnum moss in his neighbourhood. He read a paper before the North British Branch of the Pharmaceutical Society (C. & D., December 16, 1916, p. 45), in which he gave some interesting particulars of the work.

We asked him to supply us with characteristic specimens of the varieties of the moss, so the different varieties, but S. cymbifolium predominates. The colours of the mosses grows may have the benefit of his botanical vellow to marcon.

moss grows may have the benefit of his botanical yellow to maroon.

knowledge. Mr. McCutcheon accordingly sent us samples of the raw material and also of the product as made up into cushions and compressed into sheets. The

Some Seasonable Recipes.

CHILBLAINS

continue to be a perennial source of revenue to pharmacists. In the early stages the local irritation and swelling cause considerable discomfort. The following produces an application which affords much relief and comes as near to a "cure" as any local application can be expected to be:

Tannic acid		 •••	60 gr.
Menthol	•••	 	120 gr.
Castor oil	•••	 	15 gr.
Rectified spirit	•••	 	2 oz.

To be painted over the chilblains morning and evening, and more frequently if and when itching occurs.

Occasionally chilblains "break," that is, the skim over the swollen part becomes "dead" and sloughs off, leaving a raw surface which is usually somewhat septic. For this condition the following ointment, while simple, seems just to hit nicely the required properties of being antiseptic and healing. It has many enthusiastic supporters:

Carbolic acid	40 gr.
Boric ointment, B.P. 1898	1,640 gr.
Zinc oxide	240 gr.

It should be applied on a piece of linen or lint. The dressing to be changed morning and evening. If the sore appears to need cleaning, dribble hot carbolic lotion 1 in 60 on to it from a height before applying a new dressing.

In these times, when glycerin is not permitted for use in toilet-preparations, there is a call for substitute applications for the skin. A return to the good old camphor cerate and cold-cream variety of emollient is an opportunity for modernising some of the favourite formulas and introducing new ones. The following recipes afford very effective and acceptable products:

CAMPHOR CERATE.

White beeswax			•••	6 oz.
Spermaceti		•••		6 oz.
Sesame oil	•••	•••	•••	16 oz.
Camphor flowers	***	•••		4 oz.
Synthetic otto	•••	•••	•••	20 m n.
Bergamot oil	•••	•••		120 min.

Melt the wax and spermaceti together with the sesame oil, and dissolve the camphor in the mixture; finally add the otto and bergamot, just before pouring. While this is excellent for the hands, a milder emollient is preferable for the face.

SKIN-FOOD.

The following gives satisfaction:

Almond oil		•••	•••		2 oz.
Spermaceti	•••	•••	***	•••	4 oz.
White beesw					1 OZ.
Orange-flowe	r wa	ter, un	dilute	d	½ oz.
Simple tincti	are o	i benzo	nn	•••	10 drops
Synthetic ott	.0	•••	•••	•••	5 drops

Melt the wax and spermaceti in the almond oil, add the orange-flower water, and beat well to whiten and toughen; incorporate the tincture and otto when finishing.

This should be applied lightly at night after washing with warm water and superfatted soap; it should be well massaged into the skin, and just as little used as will spread over the surface. It is very nourishing, and if properly applied not "greasy."

FACE AND HAND LOTION.

Quince	mueilage	, made	with	rose-	
water		•••		•••	7 oz.
Clarified		•••	•••	•••	1 oz,
	chloride	•••	•••	•••	30 gr.
Boiling	distilled	***	•••	•••	4 gr.
DOMINIE	uisuneu	water			2.07

Dissolve the honey, salicylic acid and sodium chloride in the boiling water, add quickly to the mucilage, and shake well,

An excellent substitute for glycerin and rose-water. If the skin around the nails become hard and ragged it is well to apply a

CUTICLE CREAM

such as the following. The skin should be first softened by washing with warm water and soap, using a piece of pumice-stone to smooth any rough bits, then the cream can be put on and a little cautiously worked with an orange-stick between the nail and the skin:

White soft	paraffin	n			960 gr.
Anhydrous	wool-fa	at	•••		480 gr.
Spermaeeti		•••	•••	•••	220 gr.
White bees		•••	•••	•••	150 gr.
Coumarin	•••	•••	•••	•••	'5 gr.

Melt the spermaceti and wax in the soft paraffin, add the wool-fat and coumarin, mix well, and allow to cool without stirring.

NAIL NUTRIENT AND POLISH.

Amber resin		•••	•••	48 gr.
Oil of lavender		•••	•••	4 drops
Beeswax	•••	•••	•••	24 gr.
Linseed oil				108 gr.

Melt the spermaceti and wax in the linseed oil, add the oil of lavender, and allow to cool without stirring.

Some of this rubbed into the nails preserves them from becoming rough and dry or cracky. It improves the brightness of the nails if a polisher be employed an hour or two after it has been applied.

At the close of the day's labour the pharmacist may be in need of a refreshment which does not require much preparation, since in these times of prohibition he may be too late to get it prepared for him in the orthodox manner. If he keeps handy a bottle of

Aromatic Cordial

such as is produced from the following formula, aboutan ounce of it with a suitable quantity of aërated water or hot water will make a mixture which, like the famous cocoa, is grateful and comforting:

Essence of vanilla		½ OZ.
Essence of lemon (soluble)	•••	1 oz.
Orange-flower water, undiluted	•••	$1\frac{1}{2}$ oz.
Soluble essence of ginger	•••	3 fluid oz.
Citrie aeid		1 oz.
Water	•••	
Sugar		5 lb.
Burnt-sugar colouring		1 fluid oz.

Dissolve the sugar and citric acid in the water by the aid of heat, strain, add the remaining ingredients, previously mixed together, and make up if necessary to 100 fluid ounces with water.

The Pill.

A MIXTURE of powder, and liquid, and paste, Unpleasant to smell and disgusting to taste; Compounded with care—never make me in haste— The mortar's left clean and there's nothing to waste.

I'm pummelled and pushed till sufficiently firm, Made into a ball, then rolled out like a worm; Next out into pieces—machine made by "Maws," Hustled hither and thither with never a pause.

If properly cut I'd be quite the right size; If properly rounded I'd roll fast and free. Sometimes I am neither, and, to my surprise, The blame (in bad language) is thrust upon me.

The fashions have changed, and the change makes me sad. In gold and in silver I used to be clad.

Now sugar and chalk are thought quite good enough;
The suiting's called "Pearl" which you bet's merely bluff.

At last I'm grown up, tho' the process is slow; And I owe you a grudge for that beating, you know. I am swallowed to death—alas and alack! But in dying—"My word! don't I get my own back!"

METRIC AND DECIMAL SYSTEMS.—Draft Bills relating to the metric system of weights and measures and the decimal system of coinage are to be submitted to the various Chambers of Commerce throughout the country, and, if approved by them, are to be introduced into Parliament in the course of the ensuing Session.

Microscopic Stains.

THE increasing interest which is being taken by chemists in bacteriology and microscope technique has brought us inquiries for the various stains and accessories employed in inquiries for the various stains and accessories employed in connection with the study of micro-organisms. Squire's "Methods and Formulæ" is the standard work on the subject, and most text-books on bacteriology contain formulæ for the stains which the author recommends. There is also a chapter on the subject in "Pharmaceutical Formulas," and in Martindale's "Extra Pharmaceutical Formulas," and in Martindale's "Extra Pharmacopeia" (Vol. II.). The following are taken from the United States Pharmacopeia (Ed. IX.), and the recipes suggested by the American Pharmaceutical Association, and are arranged in alphabetical order. The word "mil" is used in the sense in which it is employed in the British Pharmacopeia—it is better known as "c.c."

ALUM-HÆMATOXYLIN SOLUTION (U.S.P.).

Hæmatoxylin	crys-		
tals		1	gram
Ammonium	alum		
(sat. sol.)		100	mils
Distilled water		300	mils
Thymol		0.5	grain

distilled water by the aid of heat, add the other ingredients, and expose the combined solution to the light in a bottle loosely stoppered until it has assumed a dark red colour, then filter.

BORAX-METHYLENE-BLUE SOLUTION (U.S.P.).

Methyltmonine emor-		
ide (methylene		
blue)	2	gram
Sodium borate (1 in		
20), boiling, to		
make	100	mils

35-42 103 (-- 1- - - 1-1 --

CARBOL GENTIAN VIOLET (A.Ph.A.).

Gentian violet, sat.		
alcoholic sol	10	mils
Phenol (2.5 per cent.	90	mils

Replaces the aniline-gentian-violet solution used in the gram method of staining bacteria, which deteriorates rapidly. The earbolic solution keeps well for three months, even in warm

CARBOL-METHYL-VIOLET SOLUTION (U.S.P.).

Methyl violet 6B. so-		
lution (q.v.)	10	mils
Phenol (1 in 20		
water) to make	100	mils

CARBOL-FUCHSIN SOLUTION (U.S.P.).

cohol) Phenol (1 in		10	mils
water)		100	mils
Diluted Carb	ol-fuc	hsin .	Solution
(U.S.P.) is prepa of the above sol	ared b ution	y mix with	ung 1 mil 4 mils of

EBNER'S FLUID (U.S.P.). (For decolorising tubercle

distilled water.

Dacini.)		
Hydrochloric acid	2-5	mils
Sodium chloride	2.5	gram
Distilled water	100	mils
Alcohol	500	mils
Prepare a solution.		

EHRLICH'S TRIACID STAIN	(0.S.P.).
Orange G. (sat.	
aqueous solution)	
120 to 125	$_{ m mils}$
Acid fuchsin (sat.	
aqueous solution)	-
80 to 165	mils
Methylene green (sat.	
aqueous solution) 125	mils
Distilled water 300	mils
Dehydrated alcohol 200	mils
Glycerin 100	mils
Mix.	

GABBETT'S STAIN (A.Ph.A.).

Methylene blue Sulphurie acid,		2	grams
per cent.	25	100	mils

Ammonium alum (sat. sol.)... 100 mils Distilled water ... 300 mils Thymol ... 0.5 grain Dissolve the hæmatoxylin in a little stilled water by the aid of heat, id the other ingredients, and expose in this solution, rinsed in water, and Used as a decoloriser and a counter-

GENTIAN VIOLET STABILISED (A.Ph.A.).

Aniline			28	mils
Gentian			8	grams
Aleohol,	95 per	cent.	100	mils
Normal				
acid			5	mils
Think (11) - 3			•	LILING

Distilled water to make ... 1,000 The gentian violet is dissolved in the alcohol. The hydrochlorie acid is added to the aniline, and the whole is dissolved in enough water to make 900 mils. The aqueous solution is

solution is filtered and added to the alcoholic solution of the stain. The whole is filtered and is then ready for use. This stain keeps for about three months under ordinary laboratory cardition. conditions.

GIEMSA'S STAIN (U.S.P.).

Azur 11eosin		0.3	gram
Azur II		0.8	gram
Glycerin		250	mils
Methyl alcohol		250	mils
Disserted 41	3	4. 4.1	

alcohol, and add the glyeerin, and filter.

GRAM'S STAIN (U.S.P). (Aniline Water—Methyl Violet

Aniline	15	mils
Methyl violet 6B.		
(sat. alcoholie sol.)	7	mils
Dehydrated alcohol	10	mils
Distilled water to		
make	100	mils

Shake the aniliue with 65 mils of distilled water for several minutes: filter the resulting opalescent aniline water through a moistened filter, pour the filtrate into a solution prepared by mixing the other liquids, and add sufficient distilled water to make 100 mils.

HAYEM'S SOLUTION (U.S.P.).

(For red blood-cor	pusel	es.)
Sodium sulphate	5	grams
Sodium chloride	1	grain
Mercury perchloride	0.5	gram
Distilled water	200	mils
Dissolve the salts in	the	distille
water and filter.		

	JEN	MER S S	TAT'A	(0.0.2	•)•
	Eosin			0.5	grai
M	ethyl	alcohol	t-o		
	make			100	mils
		vithionir			
	chloric	le (me	thy-		

lene blue) 0.5 gram

Metbyl alcohol to make ... 100 mils

For use mix 25 mils of eosin solution with 20 mils of methylene-blue

LOEFFLER'S METHYLENE-BLUE SOLUTION (U.S.P.).

Methylthionine		
ehloride (methy-		
lene blue)	0.5	gram.
Alcohol	30	mils
Potassium hydrox-		
ido N		
ide $\frac{N}{10}$	2	mils
Distilled water	98	mils
Dissolve the methyler	ne blu	e in the
alcohol, add the potassi	um hv	droxide
man A 32 m (211 3)		

DILUTED LUGOL'S SOLUTION (U.S.P.).

and distilled water.

(Gram's Iodine Solution.) Potassium iodide ... 1 gram Potassium iodide ... 2 gram grams Distilled water to make 200 mils

MAYER'S HEMALUM (U.S.P.). Hematein or its am

ALCHIOCCALL OF 103	0.111-	
monium salt	1	gram
Aleohol, 90 per	cent. 50	mils
Alum	50	grams
Distilled water	1,000	mils
Thymol	~0.5	gram
		0-0111

Dissolve the hematein in the aleohol by the aid of heat, add the thymol, and then this solution to the alum dissolved in the distilled water, and then filter.

METHYL VIOLET 6B. ALCOHOLIC SOLUTION (U.S.P.).

Methyl violet 6B	10	grams
Alcohol to make	100	mils
NEISSER'S STAIN	(A Ph	4.5

(Differential stain for diphtheria bacilli.)

Methylene blue	0.1	gram
Alcohol	2.0	mils
Glacial aeetic acid	5.0	mils
Water	95.0	mils

Bismarck brown ... 2 grams Water ... 100 mils The fixed smear is stained for five

water and counterstained with solu-tion B for five seconds. By this method the polar bodies are stained blue, while the bacillary bodies are stained brown. ROUX'S STAIN (A.Ph. A.).

(Differential stain for diphtheria bacilli.)

A.		
Dahlia violet	1	gram
Aleohol, 90 per cent.	10	mils
Distilled water to		
make	100	mils
- B.		
Methyl green	1	gram
Aleohol, 90 per cent.	10	mils
TO 1 1 111 2		220

... 100 mils make ... Before use, one part of solution A is mixed with three parts of solution B. The preparation is stained with the mixture for two or three minutes.

Distilled water to

STERLING'S SOLUTION OF GENTIAN VIOLET (A.Ph.A.).

(Aniline Gentian Violet.) Gentian violet ... 5 Aniline ... 2 grams Aniline 2 Alcohol 20 Distilled water a mils mils

sufficient quantity ... 100 mils summer quantity
to make 100 mils
Dissolve the gentian violet in the
alcohol, add the aniline and then the
distilled water, and filter through a
wetted filter. For use as a stain for
bacteria in Gram's method, encapsulated organisms in Welch's method

and flagella in Loeffler's method.

Toison's Solution (U.S.P.).

Methyl violet 6B.	•••	0.0	25 gram
Sodium ehloride		1	gram
Sodium sulphate		8	grams
Glycerin		30	mils
Distilled water		300	mils

Dissolve the salts in the distilled water, and add the methyl violet and seconds with solution A, washed in the glycerin.

The Chemist in Literature.

MR. W. E. WILSON, dispensing chemist, Hawick, calls our attention to the following interesting reference to a chemist which occurs in Roger Wray's "The Soul of a Teacher." The character is stated to have been drawn from life, but the chemist does not bulk largely in the novel:

"Mr. David Clay was an unusual type of tradesman. He might be described as a genius who happened to keep a chemist's shop. Like all his fellows he existed in the a chemist's shop. Like all his fellows he existed in the three dimensions of food, work, and slumber; but he also moved in that mystic fourth dimension of imagination and ideas. Had his mind been less occupied with the problem of getting the world on, he might have got on in the world. He spent so much time over the principles of economics that he made little money.

It must be admitted that Mr. Clay's business was not in a flourishing condition, and his shop was invariably in a muddle. A passing glance through the open door discerned an unmistakable Caledonian—sturdily built, sandy-haired, and self-possessed. . A casual conversandy-haired, and self-possessed. . A casual conversandy-haired and self-possessed. . A casual conversand.

discerned an unmistakable Caledonian—sturdily built, sandy-haired, and self-possessed. . . A casual conversation discovered in him a cynic whose very satire was too caustic to be real. He expressed himself passionately, and showed his worst qualities first. He blazed and fulminated at the petty things of commercial life, but no true cynic is afiro within as Mr. Clay was.

He was generally in a state of indignation. He used to read the works of Haeckel, Büchner, Laing, Ingersoll, and all the Rationalists, not because he agreed with their doctrine, but because they made him boil over, and he found the experience stimulating. He was an extreme partisan in politics—to the derogation of his business—although he railed against his own party fiercely enough in times of peace.

There were eccentricities in his character, of course, and many a woman who went into his shop ostensibly to buy a penn'orth of vaseline was treated to a dissertation on the Covenanters buried in Greyfriars Churchyard, or a tirade against the half-measures of the Government.

Trade Report.

he prices given in this section are those obtained by importers or manufacturers for bulk quantities or original packages. To these prices various charges have to be added, whereby values are in many instances greatly augmented before wholesale dealers receive the goods into stock, after which much expense may be incurred in garbling and the like. Qualities of chemicals, drugs, oils, and many other commodities vary greatly, and higher prices than those here quoted are charged for selected qualities of natural products even in bulk quantities. As a result of the War wholesale houses have had to contend with many fresh difficulties, some of which have involved greatly increased expenses. Shortage of labour with higher wages (equal to almost double pre-war rates) has a direct effect upon values of goods, as also have rail way carriage, freights, cartage, and other charges. The foregoing and other incidental outlays prevent retail buyers purchasing at the market prices quoted

12 Cannon Street, E.C., January 24, 5.30 p.m.

As this report closed for press on Wednesday evening at 5.30 p.m. any further changes and market information will be found in our Coloured Supplement. Business in the interim has continued quiet, and there have been very few changes. Sulphur-flowers are now very scarce, and values nominal; nitrate of soda and arsenic are dearer. Ammonia sulphate is now prohibited from exportation to all countries, and licences are difficult to procure; market is nominal. Epsom salt has had more inquiry. Quinine has been in better demand; acetanilide is lower, and chloral hydrate casier. Cocaine, barbitone, and phenazone chloral hydrate casier. Cocaine, barbitone, and phenazone are dearer. Cream of tartar is getting scarce; citric and tartaric acids are unchanged. Among drugs, etc., calumba remains very scarce; gamboge is arriving more freely. Honey has been excited with "record" prices paid by confectioners and others.

Higher	Easier	Lower
Anise Arsenic Barbitone Cocaine Glucose Honey Phenazone Soda mitrate Sulphur flowers	Ammon. bromide Chloral hydrate Coconut oil (Ceylon) Coriander-seed Cumin-seed Potash bromide Sodium bromide Soya oil (Hull) Turpentine Vanillin	Acetanilide Linalyl acetate Linseed oil Palm oil (Lagos) Potash permang.

Cablegram.

New York, January 23.—Business in drugs is fair. Menthol has advanced 5c. per lb. to \$3.30. Curação aloes is firmer at 9½c., and Mexican sarsaparilla is also firmer at 14c. Senega has advanced to 65c., and gentian to 14c. Copaiba has improved 2c. at 65c. per lb. Oregon fir balsam has been reduced to 75c. Morphine and codeine have advanced 40c. per oz. Acctanilide is lower at 43c. per lb.

ACETANILIDE.—A much weaker tone has developed in U.S.,

ACETANLIDE.—A much weaker tone has developed in U.S., our cable quoting 43c. per lb.; on the spot from 2s. 6d. to 3s. per lb. net is quoted, as to quantity.

ACID, ACETYL-SALICYLIC, on the spot is offered at from 17s. 6d. to 18s. per lb. net as to quantity and seller; to arrive, New York quotes 17s. for prompt shipment.

ALOES.—The exports from the Union of South Africa during October 1916 amounted to 13,983 lb. (1401.), against 58,410 lb. (4291.) in October 1915. During the ten months ended October 31, 1916, the exports were 852,062 lb. (7,9421.), against 446,642 lb. (3,3641.) for the corresponding period of 1915.

AMDDOPYNIN.—The French export tax is temporarily affect-

AMIDOPYRIN.—The French export tax is temporarily affecting the price on the spot, but fresh supplies are on the

way from Switzerland.

way from Switzerland.

AMMONIA CHLORIDE.—Large crystals in casks are quoted at 60s. per cwt. and granular at 47s. 6d. net.

AMMONIA SULPHATE.—Nominal. Home-trade price is 15l. 10s. per ton for January-February delivery. Export prices are: London, prompt, 25-per-cent., 17l. 10s. per ton net, naked at works; Hull, 24-per-cent., 18l. 10s.; Liverpool, 18l. 15s.; Leith, 18l. 17s. 6d., less 3½ per cent. in bags f.o.b. The chemical having been prohibited for exportation to all destinations the issue of export licences will be fewer, in view of the increasing use in this country.

ANISE OIL, STAR, is quiet, with "Red Ship" offering at about 3s. 5d. per lb. on the spot, and at 3s. 4d. c.i.f.

ANISEED .- A few sales have been made at 90s. to 100s. per cwt., being much dearer.

ARSENIC has advanced to 50l. per ton for best white Cornish powder ex wharf.

BARBITONE is very scarce, nothing being obtainable under 110s. per lb. net.

BLEACHING-POWDER is very firm and scarce at from 321.

to 35l, per ton.

to 35l, per ton.

Browndes have a weaker tendency. Potash, granular, is offered at 6s, to 6s, 6d., sodium 3s, 6d. to 4s, 3d., and ammonium 5s, to 5s, 6d.

Buchu.—The exports from the Union of South Africa during October 1916 amounted to 12,596 lb., valued at 2,478l., against 16,490 lb., valued at 2,456l., in October 1915; for the ten months ending October 1916 the exports were 123,771 lb. (20,568l.), against 142,361 lb. (21,924l.) in 1915. in 1915.

CALUMBA. - Market is very bare, with only one lot offer-

ing from first-hands. CANANGA OIL.—Sales of Java have been made on the spot at 18s, 6d. per lb. for pure,

CANARY-SEED is still in little demand, but quotations are unchanged at 80s. to 82s. per quarter for fair to good Morocco.

CASCARA SAGRADA.—The high prices asked have revealed a few lots in second-hands which have been offering at below the top figures.

below the top figures.

CHLORAL HYDRATE in easier tendency at 6s. 9d. per lb. net for crystals in bond. America is rather lower.

CINCHONA.—At the tender held at Amsterdam on January 17, 14,298 packages, weighing 1,146,971 kilos., with a quinine-content of 72,760 kilos., were on offer. Of this quantity there was allotted to the makers 9,566 packages, weighing 772,828 kilos., equivalent to 48,611 kilos. quinine sulphate. The Bandong Factory bought the equivalent of 8,655 kilos. quinine.

CLOVES are dull, with spot sellers of fair Zanzibar at 8d.; January-March shipment at 7\superscript{\subset}{\subset} d. c.i.f., d.w., and March-May delivery at 8d.

COCAINE is very scarce, the hydrochloride in limited quantities offering at from 25s. to 26s. per oz. net.

CCCOA-BUTTER.—At auction 1,000 cases Cadbury's A offered, and 50 sold at 1s. 6\subseteq d.

COCOA-BUTTER.—At auction 1,000 cases Cadbury's A offered, and 50 sold at 1s. 6\(\frac{7}{3}d \).

COD-LIVER OIL.—Our Bergen correspondent writes on January 15 that the new cod-fishing is now on the point of commencing. Meanwhile the market for finest noncongealing medicinal oil is lifeless.

CORIANDER-SEED is barely steady at 55s. to 57s. per cwt. for fair Morocco on the spot. Bombay is offering at 52s. 6d.

per cwt. COUMARIN has been in very slight demand at about 56s.

CREAM OF TARTAR is very firm and scarce at from 185s.

to 187s. 6d. per cwt. on the spot.

Cumin-seed is easier at 85s. per cwt. for sifted Morocco, with rather more business.

EPSOM SALT has been rather more inquired for; 15l. per

ton will buy good druggists' in casks on spot.

Fenugreek-seed is steady at 34s. per cwt. for fair Morocco.

Formaldehyde is offered at from 80s. to 82s. 6d. per cwt.

in barre's for 40 per cent. GAMBOGE.—Some good Siam pipe is about landing, but it is badly wanted at 25l. to 26l. per cwt.
GLUCOSE is dearer at from 37s. 6d. to 38s. per cwt. for

GLUCOSE is dearer at from 37s. 6d. to 38s. per cwt. for liquid as to brand on the spot.

HONEY.—There has been a scramble among confectionery and biscuit makers to get supplies, and prices have rapidly advanced in consequence, second-hand holders asking extreme rates; the sales include yellow Cuban at 57s. 6d., and other prices in proportion. An auction of about 1,030 cases Californian (in prize) will be held at the London Commercial Sale Rooms on Thursday, January 25.

IODINE.—The exports of crude iodine from Japan during October were 795 kin, valued at 4,930 yen. During the ten months ending October they were:

months ending October they were:

1914 11,780 Kin 71,540 24,684 10,362 Yen

••• ...

Jalar remains cheap, spot offering at $10\frac{1}{2}d$. per lb. for 9.35 per cent., and 1s. $1\frac{1}{2}d$. for 12 per cent. Lime Oil.—Sales of hand-pressed West Indian have been made at 14s. per lb. on the spot; distilled is still 9s.

LINALYL ACETATE is offered at the lower price of 40s. per

lb. net.

LINSEED is firm at 110s. per quarter for fair quality.

LIQUORICE-ROOT.—Values of decorticated are from 87s. 6d.

Menthol.—Quiet, with sellers of Kobayashi-Suzuki at 13s. 9d. on the spot, and at 12s. 3d. e.i.f.

METHYL SALICYLATE is offered at 6s. per lb. net on the

MORPHINE. - In further reference to last week's paragraph, we understand from the makers that there is no possibility of any shortage of morphine, and that supplies for consumption in the British Empire and by the Allied Governments are ample to meet requirements. The makers supply their regular customers with small lots on the basis of 13s. 6d. per oz. net for hydrochloride.

MUSTARD-SEED.—English yellow is quoted 52s. 6d. to 54s. per cwt. for fair to good quality.

Oils (Fixed).—Linseed is lower, closing at 48s. 9d. per cwt. in pipes landed and 49s. 9d. landed in barrels. Cottonsced is unchanged at 49s. 6d. for crude in pipes, and pale refined in pipes on spot is 51s. 6d. to 52s. 6d.; for sweet refined in barrels from 58s. to 60s. is quoted. Rape is steady, with ordinary brown naked on spot offering at 54s.; British refined in barrels is 57s. to 59s., and Japanese in cases is 51s. c.i.f. for January-February shipment. *Coconut* is dull at 64s. for Ceylon in hogsheads on spot and 62s. in pipes. Cochin on spot is 64s. to 66s., and shipment 63s. 6d. c.i.f. London pressed is 51s. 6d. Hankow Wood oil is 77s. 6d. spot and 65s. c.i.f. Soya is dull; Hull (spot) crushed is 48s., and in London December-January shipment is 47s. c.i.f. Lagos Palm is lower at 48s. on spot, and 43s. ex quay Liverpool.

Orris.—Values of Florentine are firm on spot at from 65s. to 67s. 6d. per cwt. as to quality.

PHENAZONE is dearer at from 40s, to 42s, per lb. net on spot.

POTASHES.—Only small sales are being made at the quoted figures of 180s. to 190s. for first Montreal.

QUININE has been in rather more inquiry, with sales of sulphate from second-hands at from 2s. 4_2d . to 2s. 5d. per oz., which brings the price practically up to that in first-hands.

SACCHARIN.—Retail lots have been selling at fancy prices, including 550 strength at 245s. per lb.

SALICYLATES. -Sodium salicylate from U.S. is arriving in fair quantity, with 5s. 6d. quoted in several directions for powder. Salicylic acid is easy at frem 4s. 9d. to 5s. for English B.P., with U.S.P. offering at 4s. 3d.

SENEGA.—Spot values remain at from 3s. 2d. to 3s. 3d. per lb. net.

SENNA - Several thousand bales of Tinnevelly have still to be auctioned. Fair bold leaf is selling at $7\frac{1}{2}d$., fairly green at $4\frac{1}{2}d$., and pods at from $4\frac{1}{2}d$. to $5\frac{1}{2}d$. as to quality.

SERFENTARY or Canada snake-root has advanced in U.S. 10 cents on the ordinary and 12 cents on the selected owing to the unusually heavy demand, estimated at from owing to the unusually heavy demand, estimated at from 1,000 to 5,000 lb., from distillers of the essential oil. Up to 40 cents per lb. has been quoted in U.S., as growers realise that it is impossible to substitute it. There is quite a scarcity at the present time. The essential oil distilled is quoted by New York wholesale houses at \$8.50 to \$10.00 per lb. as to quantity.

SHELLAC has been firm, but quiet, with usual standard Orange quality offering at from 145s. to 146s., good at 148s.; fine orange has been sold at 180s. to 190s., and A.C. Garnet 157s. 6d. to 160s. for cakey to free. Futures are firmer, the sales including March at 144s. to 147s.

Soda Caustic is very firm at 321. per ton for 60 per cent., and 331. for 70 per cent.

SODA NITRATE is very firm and dearer the price of ordinary in Liverpool having advanced 5s. and refined 10s., at from 20s. to 20s. 6d. spot net; in London from 20s. 3d. to 20s. 6d. is quoted for ordinary, and 20s. 6d. to 20s. 9d. for refined. Soda Sulphate.—Pea crystal of B.P. quality in bags is

quoted at 7l. per ton.

STYRAX.—An advance of 75 cents is reported in New York, where \$4.00 is quoted subject to arrival and passing the Customs.

SULPHOCARBOLATES .- Both soda and zino are quoted at 3s. 3d. per lb. net on the spot.

SULPHUR.—Flowers are extremely scarce at from 21s. to 22s. per cwt. which figures have been paid. Roll is 20s. to 20s. 6d. The scarcity is due to the absence of licences for export from Italy.

TANNIC ACID — Leviss is quoted at from 4s. 10d. to 5s. per lb. net as to quantity, and technical at 1s. 9d. Pure Gallic is 5s. to 5s. 3d. net as to quantity.

TERPIN HYDRATE is quoted at 2s. 3d. per lb. net on the

TURPENTINE has been steady, closing at 52s. 9d. for American on the spot.

Arrivals of . Chemicals, Drugs, etc.

THE following is a selection of arrivals in the Port of London during the period January 16 to 22 inclusive. The countries specified are those from which the goods are consigned. Goods in transit are not

Acetic acid (U.S.) 284 brls., 5 cks. (Swz.) 60 cbys. Acetyl - salicyl. acid (Can.) 15 cs. Albumen, egg (Ch.) 8,7811.
Alc-hol, wood (U.S.)
3 6'0 gals., (Canada)
7,6'1 gals.
Aloes (U.S.) 25 cs., (Cape) 155 cs., (B.I.) 41 kgs.
Aloin (U.S.) 6 cs.
Anise oil. star !75 cs.
Annattō 1 tank

Annatto seed (Jv.) 100 cr. (Ch.) 20 Antim. cr. (Ch.) 20 tons, (Chili) 301 tons Antim. ore (Arg. Rep.), 120 tors. (Transvaa!) 30 tons, (Vic.) 425 tons

Argol (It.) 599 bgs. Arrowroot (Berm.) 16 Asthma cure (U.S.) 5 cs. Atoxyl stovaine (Fr)

Baking-powder (U.S.) 76 erts.

Bals. copaiba (U.S.) Bals. folu (U.S.) 10 c. Barbitone (Swz.) 1 cs. Belladonna-root (B.I.)

56 bgs.

Benzoic acid (Swz.)

10 cks. Beyllium nit. (Fr.) 1 es. Bismuth

ismuth ore (Vic.) 1,450/. (N.S.W.) 306/. Borax (U.S.) 3,3£7 ewt. (Fr.) 7f0 ewt.

Boric acid (Fr.) 246 cwt.

Camphor (Jr.) 75 cs. Camphor oil (Jr.) 297. Canary-seed (Sn.) 200 bgs. (Mor.) 2,000 Cantharides (Ch.) 10 cs., (Mex.) 26 bgs.

Cascarilla (Ecuador) 8 Casein (N.Z.) 8201., (P.I.) 181.,(Fr.) 5511., (Vic.) 2,3001.

Cashew-nuts 250 cwt. Cassia (Ch.) 10 cs. Celery-seed (Fr.) 3 bgs. Cerium nitrate (U.S.)

Chewing-gum 100 cs. Chloral hyd. 1.200 lb. Chlorophyl.(Swz.) 2 cs Cigarettes, med. (Fr.) 361.

Cloves (Zar.) 130 bls. Cochineal 14 bgs. Coconut oil (B.I.) 25 pps., (Cev.) 59 pkgs. Copra 7.188 cwt.

Cumin-seed 400 bgs.

400 bgs.
Dental cement (Swz.)
1,653/.
Dental goods (U.S.)
83/. (Swz.) 28/.
Dextrin (U.S.) 40 cwt.
Dinitrochlor. benzal
(U.S.), 28 cks.
Dioxogen (U.S.) 200
cs.

Drugs, unrated (B.J.)

Drugs, infrated (B.1.) 391.. (U.S.) 381. Egg. yolk (Ch.) 8,007. Essential oils. natural (B.I.) 2 pots 27 cs. 10 crts.. (Jp.) 25 cs., (Cey.) 28 dms. 1 cs.. (Fr.) 9 cs., (Ita ly) 31

Fenugreek (Mor.) 100 Formaldehyde (U.S.)

144 brls. Galls (Ch.) 500L Gambier 131 cs. Gamboge (Si.) 2 cs. Ganja (B.I.) 1 cs. Gelatin (Fr.) 301*l*. Gentian-root (Sp.) 68

bls. Ginjelly - seed (B.I.) 4,002 bgs. Glucose (U.S.) 2,176 cwt.

Glycerin dist. (U.S.) 650l.

650*l*.

Glycerophosph. calc. (U.S.) 1 cs.

Glycerole lecithin (U.S.) 2 cs.

G. acacia (B.I.) 120 cwt., (Fr.) 100 cwt.,

G. copal (S.S.) 640 cwt. G. damar (S.S.) 1,236 cwt.

G. kauri (N.Z.) 586 cwt. G. sandarae (Mor.) 56 cwt.

G. tragacanth (Pers.) 10 cwt. Heliotropin (U.S.) 2

Henna-leaves (Fr.) 6 bls. Herbs, dried (U.S.) 95 bls., (Fr.) 25 bls. 20

bgs. Holadine capsules etc. (U.S.) 1 cs. Horehound-herb (Sp.)

20 bls. Hydroquinone (U.S.) 10 kgs 4 cs. Indigo (B.I.) 465 pkgs. Jubol (Fr.) 2 cs. Lactic ferment 2 cs. Lavender flow. (Fr.) 17 bgs.

Lime-juice (B.W.I.) 374 gal. Lime phosphate 1,900 tons

Linalyl acetate (Fr.) 4 cs. Linseed (Mor.) 789 hgs., (B.I.) 735 tons 8,370 bgs., (Ch.) 3,274 Liquorice-juicc (It.)

44 cs. Liq.-powder (Fr.) 20 bgs.
Liquorice-root (Cape)
22 bls.
Lithia carb (U.S.) 10

Maize starch 230 cwt. Marshmallow - root (Fr) 27 bgs., (Sp.) 7

bis.
Menthel (Fr.) 10 cs.,
(U.S.) 10 cs.
Methyl. salicyl. (U.S.)
5 dms. 15 cs.

oths: 15 cs.

Milk-pow.,peptrgenic,
etc. (U.S.) 48 cs.

Milk-sugar (N Z.) 100
cs., (U.S.) 50 brls.,
(Holl.) 50 cs.

Niger-seed (B.I.) 667 bgs. Nutmegs (S.S.) 240

pkgs. Nux vom. (B.I.) 167 Ointment (U.S.) 3091.

cs., (U.S.) 88 cs. 1 drm., synthetic (U.S.) 10 cs., (Swz.) 4 pkgs., (Fr.) l cs. Eucalypt. oil (Austra-lia) 120 cs. Fenrel-seed (Fr.) 22 cs.; ground - nut (Holl.) 30 brls.; her-ciling (Jp.) 1,00 cs.; olive (Sp.) 20 tuns 63 gal.; sperm(Natal) 400 dms.; turpen-tine (Port.) 145 dms.; wood (Ch.) 1,330/.; (U.S.) 204/. Olibanum (B.I.) 35

opium (B.I.) 200 cs.
Papain (Cey.) 3 cs.
Pennyroyal and
marshmallow-herbs

(Fr.) 78 bls. (Fr.) 78 bls.
Pepper (S S.) 3.952 bgs.
Pepton (U S.) 2 cs.
Perfumery, unrated
(U.S.) 614l., (Fr.)
177l., (Swz.) 312l. Phenolphthalein(U.S.) 1 cs.

Pimento (B.W.I.) 80 bgs.

bgs.
Potash, pruss. (U.S.)
10 kgs.
Potato-starch (Jp.)
300 cwt.
Quassia (B.W.I.) 250*l.*Quicksilver (N.Z.)
15,000 lb., (U.S.)

Quinine (Holl.) 35,000

Ratin 10 cs. Rennet 5,063l. Resorcin (U.S.) 2 cs. Roots, medicinal (Cape) 34 hgs. Saccharin (Cape) 4,000

OZ. Sage (Fr.) 11 bls

Salicylic acid (U.S.) 13 brls. Sandalwood oil (B.I.) 14 cs.

14 cs.
Scammony resin
(U.S.) 2 cs.
Senna (Suez) 64 bls.,
(Egypt) 74 bls.,(B.I.)
25 bls.
Sesame-seed (B.I.)
4,0(2 bgs.
Soap, household (Fr.)
2300.

Soda acetate (Canada)

201 cwt. Soda salicylate (U.S.) 13 cwt.

Spermaceti (U.S.) 276 pkgs. Spirits, perf. 252 gals. Sticklac (Siam) 180 cwt.

Tannic acid (U.S.) 5 brls. Tartaric acid (Italy)

10 cs. Theobromine (Swz) 1 Thorium nit. (U.S.)

1,425% Thyme-leaves (Sp.) 20 bis.

Toilet - powder 35l., (U.S.) 412l. Vacuum-flasks (Jp.) 2181.

2187.
Vanilla (Fr.) 1 cs., (Cey.) 1 cs.
Wax, bees' (Fr.) 464
pkgs., (Madag.) 219
bls., (N.s.W.) 6 cs., (B. 1ud.) 29 bls., (Nyassa) 10 pkgs., (Zan.) 1 cs., (Mor.)
43 bgs.
Wax, paraffin (U.S.)

Wax, paraffin (U.S.) 3,151 ewt. Wax, veg. (Jp.) 100 cs. Zymine pept. tubes (U.S.) 3 cs.

ENEMY BUSINESSES IN CEYLON.-Ch, & A. Boehringer and Freudenberg & Co., both of Colombo, are among the businesses ordered by the Governor to be wound up.



Letters for this section should be written on one side of the paper only. The writer may adopt an assumed name for purposes of publication, but he must in all cases furnish His real name and address to the Editor.

The Sugar Problem.

SIR,-It looks as though the sugar problem is going to be a very difficult one. The seriousness of the position was forcibly brought home to me in a rather amusing way a few days ago, when I had an order from a doctor whom I rarely see for half-a-gallon of simple syrup. Things must be in a bad way indeed when this man comes to me, of all people, for half-a-gallon of simple syrup. I suppose, too, he would be expecting to get it for a shilling or eighteenhe would be expecting to get it for a shilling or eighteen-pence, as in the olden times he used to get it from his whole-sale house. I was compelled to tell the doctor, as I could do quite truthfully, that I was unable to supply him, and I confess that I was not altogether sorry to turn him down. The incident shows, however, that the shortage of sugar is going to be a real hardship. Some stoics like myself can do without sugar, but for young folk it is very different. The other day I went into a restaurant and called for a cup of coffec. The waitress courteously told me that they had no sugar, but I said I could do without it, and I had my coffee. It was not very palatable but how much less palatable is the bitter dose that cannot be sweetened! I palatable is the litter dose that cannot be sweetened! I confess I look forward with no pleasant anticipations to the tears and protests of the next few months. I find, however, that a mixture containing liquorice and slightly alkaline, is really good for covering the taste of the ordinary "bitters," and I would recommend your readers to give it a trial.—Yours truly,

S. N. (91/19.) and I would recommend your readers to give it ours truly.

S. N. (91/19.)

Women, and Work for a Union.

SIR,—It is a thousand pities we have no Union to look after the interests of the drug-shop assistant. Whatever, may be the position in respect of the "legitimate" trade, there can be little doubt that something of the sort is necessary in the case of drug-stores and companies, in which the employes bid fair to become more than ever subservient. The advent of so many young women is of great and far-reaching importance, and there is no one or thing to overlook and safeguard the interests of the absent male assistants, qualified and unqualified alike. At the outset of the war many men joined up, and some firms vied with each other in their offers of assistance, so that "those left behind" should not suffer. Probably where specific promises were made they have been kept. There has been an uninterrupted boom in trade. For some time, however, firms no longer assist in this way, although they are privileged in many cases to pronounce the doom of certain of the staff in favour of a few others more heavily endowed with shares. I and others were greatly surprised a few months ago to receive a circular from one of the branch managers, approved by the managing director (who also no doubt certain to the staff in the staf SIR,-It is a thousand pitics we have no Union to look surprised a few months ago to receive a circular from one of the branch managers, approved by the managing director (who also, no doubt, contributed to the stationery), making the suggestion that the managers and assistants should in effect come to the relief of the firm, allowing small sums to be deducted from our salaries to form a fund in aid of the wives and relatives. The firm had in the past shown so much liberality in this matter—equivalent practically to one week's wage in the year. As against this appeal wages are for the bulk of us exactly as before the war. Now, it is well known that in the store trade "com," or commission on the sales of the firm's specialities, is of the first importance. Men have been taken on at 30s. or 40s. a week on the understanding that the "com," would make the salary a fair average of 45s. or 55s. Some branches are very rich in "com," others not so good, but in all the amount is of importance. It has been surprising to find that not one female assistant gets been surprising to find that not one female assistant gets this auxiliary stipend, and of course no apprentice gets it. We are faced, therefore, with the position that with the men replaced by women the saving in "com." to the firm must be very great. In one branch alone on the drug side it is in the region of 5?. weekly, or enough to pay the stipends of all the womon employed and leave a balance. It is my firm opinion that women have come to stay; hosts of girls have, as they would say, entered the drug-trade, which to them means that they hand over to customers packages of packed drugs and vast quantifies of patent medicines, which is, roughly, all that the stores expect of them, and they are too busy to blush, or if they do it is one that comes from pressure

work. For all this their pay consists largely of promises; "com.," self-si mcanwhile, thcyare in terms self-supporting. It would appear that the firms are not really so hard up as is suggested by the circular referred to, and it is apparent also that the outlook for those who happily may return will not be bright—without an effort. So far as I can ascertain all these females have come in relying in good faith on certain vague and verbal promises. As a fact they are useful at once; the customers are there, and have to be terved or—shall I say?—"dealt with" on the spot somehow. In the case of several of these in my own ken they are entitled to practically the same wage as their male predecessor. They are able, willing, and very intelligent; pleasant to work with, with no silliness, and minus the rough-house vagaries of some males. If they are efficient enough for the stores they will be kept on if cheap, as they certainly are at present. They must do something for themselves, I take it, and probably will do, but meanwhile what is the outlook for the assistant male? Very poor, I'm afraid. The qualified man will be right in any case, but the unqualified will go to the wall. Many years ago I emphasised the will go to the wall. Many years ago I emphasised the want of a central inquiry office for the drug-trade—a place where information would be available as to all phases of the trade, wages, and so on; but what have we? A blind onrush of young women who are doing the very thing and trusting the very people they should not. Only a "Union" can help them now.

Yours, etc.,
X. Y. Z. (171/71.)

Subscribers' Symposium.

For interchange of opinion among "C. & D." readers, and brief notes on business and practical topics, especially new ideas.

Appreciation.

A subscriber in Scotland (112/24), renewing his subscription, says, "I am quite at 'sea' without the C. & D."

Honey-jars.

Mr. W. Bousfield writes: "The metal screw-caps of honey-jars have a tendency to stick and become difficult to open. Take a spatula or an ordinary table-knife, and gently tap the corrugations of the cap all the way round two or three times, when it will be found quite easy to unscrew the cap."

Legal Queries.

Most difficulties in trade law are explained in the legal section of "The Chemist and Druggist Diary," 1917, beginning on

Sydenham (191/35).—The pills labelled "The Liver-pill one or two at bedtime," and with the name and address of one or two at bedtime," and with the name and address of the retail vendor, are not subject to medicine stamp-duty. We understand that in no respect do you hold out the pills to be for the prevention, cure, or relief of any human ailment. The Board of Inland Revenue, after the Ransom v. Sanguinetti case in 1903, decided that such titles as "Liver-pills" applied to medicines would, like such titles as "Cough-mixture," render preparations liable to medicine stamp-duty, but later (see C. & D., October 31, 1903, p. 734) the Board intimated that they do not consider that the mention merely of an organ or part of the body by itself the mention merely of an organ or part of the body by itself renders a preparation liable to medicine stamp-duty.

Osmene (189/127) states that A. has executed a bill of sale upon his household effects, but the amount owing thereon has been considerably reduced. Can another creditor of A. take over the bill of sale without A.'s knowledge and take possession of the effects? Can A. clear the bill of sale by paying the balance owing with interest to date? [Another reditor of A, might procure a transfer of the bill of sale from the holder without A.'s concurrence, but could not take possession of the effects until A, has made default under the bill of sale, nor could he add to the bill of sale his own claim as an unsecured creditor. A. is entitled to discharge the bill of sale by paying the balance owing with the interest (if any) stated in the deed.]

Fire (188/58) states that a workman employed to repair a burst pipe in the former's house put a "blow-lamp" on the fire, and the lamp exploded. Flames shot out on to the clothing of "Fire's" wife, who was on a couch near, and

clothing of "Fire's" wife, who was on a couch near, and though she was not actually burnt, she is suffering from shock and receiving medical treatment in consequence. Is the firm who employed the workman liable to "Fire" and his wife, and within what period should legal proceedings be taken? [We doubt whether the firm is liable to "Fire" or his wife for the workman's carelessness or negligence unless "Fire" employed the firm, but if so employed, tho firm may be sued within six years after the occurrence and firm may be sued within six years after the occurrence, and may possibly be held liable for medical and other expenses

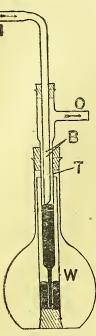
necessarily incurred.]

Miscellaneous Inquiries.

When samples are sent particulars should be supplied to us as to their origin, what they are, what they are used for and how. We do not undertake to analyse and report upon proprietary articles nor to publish supposed formulas for them.

L. H. (182/63).—Sugar of milk is one of the best diluents children's powders; it does not absorb moisture so readily as cane-sugar.

A. F. C. (184/51).—Gas-regulator for Maintaining Definite Temperatures.—The apparatus figured here is one which we think you will be able to construct from the resources of the military hospital to which you are attached.



You will note that the apparatus can be adjusted to any required temperature. Inside an ordinary Bohemian flask of about 16 oz. capacity is placed a tube, w, of not less than 20 mm. bore, having of not less than 20 mm, bore, having its lower end closed by means of a cork acting as a pad between the tube and the bottom of the flask. After completely fi.ling the flask with methylated spirit, heated to a temperature rather higher than the regulator is likely to attain while in use, the neck is closed by means of an indiarubber stopper, through of an indiarubber stopper, through which passes a tube, T, the lower portion of which is narrow, and reaches nearly to the bottom of w, while the upper part is wider, and provided with a side branch, o, for connection to the burner or stove. The internal diameter of the middle portion of T_should be about 11 mm. -i.e., about 2½ to 3 mm. greater than the external diameter of 1, in order that the annular space between the two tubes may have a rather greater sectional area than the interior of the tube I. A sufficient quantity of mercury is next poured into t, the interior dried by means of a filter-paper, and the spirit allowed to cool to the temperature which the regulator is required to maintain. 10° C. fall of temperature will cause the spirit to contract to

the extent of nearly 5 c.e. A well-fitting cork, through which passes a tube, I, of about 6 mm. bore, is inserted, and the lower a tube, I, of about 6 mm. bore, is inserted, and the lower end of I adjusted so as to just touch the surface of the mercury. The tube I serves as the gas-inlet, and has its lower end ground off obliquely. Two small holes, B, act as by-passes, permitting the passage of sufficient gas to keep the burner or stove alight if the mercury should at any time entirely cut off the main stream. It is convenient to have two by-pass holes of different sizes—say, 0.8 mm. and 1.2 mm. diameter respectively. Either of these can then be wholly or partially blocked with soap, or both can be left open, according to the nature of the work for which the regulator is being used. The regulator is easily made, and has a high degree of sensitiveness. If the temperature increases to the extent of 1°C, the expansion of the spirit causes the mercury to rise about 5 mm. in the tube T, a height sufficient to make rise about 5 mm. in the tube T, a height sufficient to make a very great difference in the amount of gas supplied. The a very great difference in the amount of gas supplied. The preliminary adjustment is facilitated if a diminutive thermometer is suspended inside the flask in order to indicate the actual temperature of the spirit. The final adjustment for a given temperature is made by raising I about 5 mm. if the temperature is found to have settled down 1° C. below that required, or proportionately in other cases. The dimensions of the regulator way of course leaves of the dimensions of the regulator may, of course, be varied in accordance with the size, etc., of the chamber to be heated and the accuracy required. Those given above are taken from a regulator which has proved very satisfactory in a greenhouse of about 3,000 cubic feet internal capacity, and should answer well in a "constant-temperature room" of medorate given in a small drying chamber. moderate size, or in a small drying-chamber.

Clapton (192/2).—(1) Sal aëratus is either potassium or sodium bicarbonate. (2) Curing Rabbit-skins. — See C. & D., November 4, 1916, p. 52.

W. F. & Co. (188/36).—An ink which will stand being blotted so soon as it is written requires something more than an aniline dye as the colouring-matter. Generally it is a matter of adding methyl blue to a tannin ink.

L. S. (22/17) submits an inscription that occurs upon an old jar which is believed to be for medicines. The inscription is in modern Greek as follows:

Metriôs pie pothête, mê methuês, adelphe. Na apernômen philika, Ochi pote echthrika.

The translation of this is:

Drink moderately, friend, Be not drunken, brother. Let us pass the time in friendship,

Never in enmity.

It would seem that the jar cannot have been used for medicine.

L. J. H. (190/14).—We are not acquainted with the veterinary gall-ointment to which you refer.

Paste Pot (184/15).—Sticking Labels on Tins.—The varieties of special pastes for causing labels to adhere to tins are almost as numerous as the requests we receive to furnish this item of information. Briefly, they are made by the addition to ordinary paste of a substance such as butter of antimony, sugar, glycerin, or honey. Others employ sodium-silicate solution (water-glass) as the adhering the state of the sive, and another plan is to give the tin a substratum of an acetic-acid solution of gelatin.

 $.1\,mati$ (195/24).—VIOLIN-VAENISH.—The formula to which you refer is as follows:

Sandaraeh 2 Mastic, in tears oz. ½ oz. Elemi Dragon's-blood 1 OZ. Turpentine, Castor oil of each 10 oz. Spirit ----

Put the turpentine and spirit in a wide-mouthed bottle, with a small quantity of powdered glass, and add the mastic. Stir frequently, and after twenty-four hours add the other resins. Leave to stand for another twenty-four hours, and then add the oil while stirring. Let the mixture stand for a fortnight in strong light; then filter through cetter. through cotton.

R. C. H. (183/14).—LEROY'S CRUDE-OIL EMULSION.—Your last request did not say which of Professor Leroy's solutions you required. From what you write now we gather that it is the lice-deterrent for which you require the formula. It was first given in the C. & D., October 16, 1915, p. 48, as follows:

Whale-oil soap Crude Barbados petroleum ... 5½ pints ... 4 oz. Naphthaline

This makes a jelly which is diluted for use as an insecti-

Hairy (178/44).—Depilatory:

Barium sulphide, in fine powder ... 1 to 3 parts
Stareh-powder 3 parts Stareh-powder

Make into a paste with water at the time of using, spread over the part required, and remove at the end of five or ten minutes.

Retrospect of Fifty Years Ago.

Reprinted from "The Chemist and Druggist," Jan. 15, 1867.

The Codex.

The first article in the new volume of THE CHEMIST AND DRUGGIST was by Mr. Joseph Ince, Associate of King's College, London, on "Tho Codex or French Pharmacopæia," drawn up by order of the Government, the Editorial Commission being composed of Professors of the Faculty of Medicine and of the School of Pharmacy of Paris, of members of the Imperial Academy of Medicine, and of the Pharmaceutical Society of Paris. Mr. Ince's article commenced with the statement that

"A knowledge of French Pharmacy has become indispensable to the English student. It is proposed in this and following papers to give a broad outline of the more salient portions of the Codex, and, as far as possible, the work, as issued from the Paris press, will be made its own interpreter."

Mr. Ince proceeded to give a history of the Codex from the first issue drawn up according to the Law of 21 Germinal, Year XI. (corresponding to April 11, 1803), to replace the one ordered by the Parliament of Paris on July 23, 1748, which appeared in 1818. After the introduction Mr. Incepresented a vocabulary beginning with Alcali Volatil and finishing with Vin Diurétique amer de la Charité.

THE LATEST!



Wholesale 1/6 per 3 tab. box. Retail 9d. per tab., minimum.

Cook's "CUTANEOUS," Black and White Label, has for years enjoyed a well-deserved popularity, and we now recommend the Medicated quality, Black and Red Label, to you with every confidence. It is a sure seller.

EDWARD COOK & CO., LTD.

The Soapery, BOW, LONDON, E.

Hopkin and Williams, Limited,

Cross Street. Hatton Garden.

London,

Telegrams: "Cerium London."

Telephone: 604 Holborn.

Ilford, Essex. Works:

Manufacturers of

PURE CHEMICALS and CHEMICAL PREPARA-TIONS for DISPENSING.

Guaranteed Chemical Reagents for ANALYSIS and RESEARCH

Made and supplied to standards and specifications described in the publication,

"Analytical Reagents: Standards and Tests,"

Compiled by EDMUND WHITE, B.Sc. (Lond.), F.I.C. Published by

HOPKIN & WILLIAMS, LTD.

Octavo, pp. 90, Interleaved.

Cloth Bound.

Price 1/- post free. from the Publishers.

Monsanto Chemical Works,

ST. LOUIS, MISSOURI, U.S.A.

Manufacturers of ACETANILID.

ACETPHENETIDIN (PHENACETIN).

CAFFEINE (Pure!Alkalold).

CHLORAL HYDRATE.

COUMARIN.

GLYCEROPHOSPHATE OF CALCIUM.

Glycerophosphate of Sodium Puro Crystals.

Glycerophosphate of Sodium

Pure Crystale Powdered.

GLYCEROPHOSPHATE of SODIUM 75% Clycerophosphate of Potassium 75%

Aiso Clycerophosphate of Iron, Manganese, Magnesium.

Phenolphthalein.

Saccharin.

New York Branch: Platt and Pearl Streets.

MALLINCKRODT
CHEMICAL WORKS
OF CANADA LTD.

The products of our manufacture are of the Purest and Highest Standard. We are in a position to offer the Mother Country and Sister Colonies a full line of PHARMACEUTICAL AND PHOTOGRAPHIC CHEMICALS.

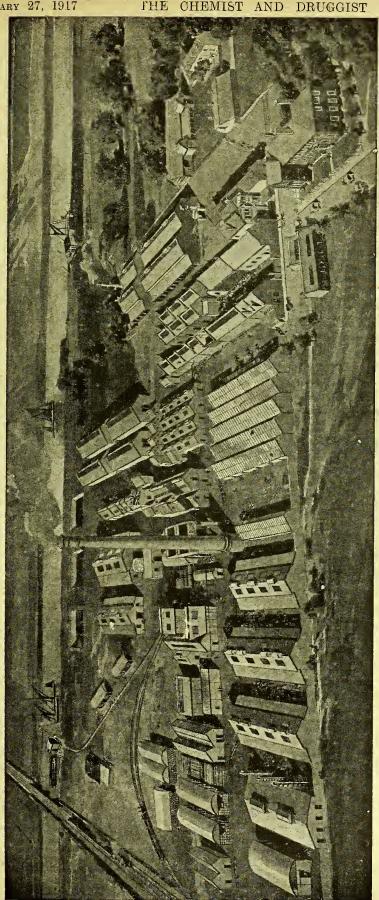
Acid Pyrogallic Acid Gallic (Crystals and resublimed) Hydroquinone Trional (Metbyl-Nulphon I) Morphine Salts Sulphonal Hexamethylenetetramine

MADE IN CANADA

ACID ACETYL-SALICYLIC B.P. (Pure Aspirin)
Manufactured at our Montreal Works, BRITISH MAKE, Lowest Prices for Wholesale Quantities.

Cable Address: "Malkhem Montreal."

1797-1917



THE ILFORD ESTABLISHMENTS OF

HOWARDS & SONS, LTD

BISMUTH SALTS MERCURIALS

QUININE

SODA TART.

CAMPHOR

ETHERS

BROMIDES

IODIDES SPIRITS

and of their Branch House

HOPKIN & WILLIAMS, LTD.

These Works and Warehouses cover 11 acres, and are additional to the departments which are still retained at Stratford

(ACID ACETYL-SALICYLIC, B.P.) ASPIRIN TABLETS GLAUBERS (PURE) EPSOMS (PURE) SODII BICARB. ACID CITRIC MAGNESIAS ACETATES CITRATES

ESTABLISHED A.D. 1772.

HENRY'S CALCINED MAGNESIA.



For HEARTBURN, HEADACHE, GOUT,
BILIOUSNESS, ACIDITY OF THE
STOMACH, TRY

Henry's Calcined Magnesia

FREE FROM TASTE, SMELL OR ROUGHNESS TO THE PALATE.

ADULTS.

A Safe Aperient for the most delicate constitutions

CHILDREN.

May be given to children in early infancy. The addition of a small quantity of the Magnesia prevents milk turning sour on the stomach.

MESSRS. THOMAS and WILLIAM HENRY, of

Manchester, England, beg to inform the Trade generally that they continue to manufacture their old-established "CALCINED MAGNESIA" in the Greatest Chemical Purity, and also wish to warn Buyers against the numerous spurious and very inferior imitations offered in various foreign countries.

For the guidance of the Trade they submit facsimiles of their Bottle, wrapped and unwrapped.

HENRY'S CALCINED MAGNESIA,

Price 21. 94. Stamp technical

CAUTION.

The Purchasers of this article are requested to observe that the words "THOS. AND WILLM. HENRY ANCHESTER," are engineed on the Government though panied over the card of each bottle. This is the oally effectual security against the commerciated imitations, which are sold in bottles similarly monified, under their panmes.—Trado Mark, "Henry's Calcined Magnesia."

THE LABELS CAN BE HAD IN ENGLISH, SPANISH, PORTUGUESE, OR ITALIAN

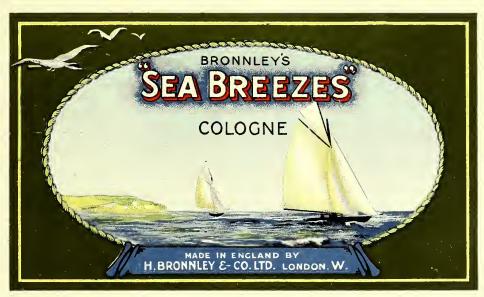
Messrs HENRY will be pleased to hear from Merchants who are suspicious of any Stock in their possession.

THE MAGNESIA MAY BE HAD THROUGH ALL WHOLESALE HOUSES:

Registered Trade Mark: - "HENRY'S CALCINED MAGNESIA."

Masses. Thomas & William Henry, 11 East Street, St. Peter's, Manchester.

The Eau de Cologne of Original Character—



FAC-SIMILE OF LABEL.

BOTTLES.

		Res	PUTED	2-ozs.		4-ozs.	 8-ozs.	
WHOLESALE				9/-		17/6	 32/6	per dozen.
RETAIL	•••		2 • •	1/2	• • •	2/3	 4/-	per bottle.

WICKERS.

		F	REPUTED	1-PT.	½-PT.	 1-рт.	
WHOLESALE	• • •			25/-	 49/-	 95/-	per dozen.
RETAIL	•••		•••	3/2	 6/2	 11/9	per wicker.

"SEA BREEZES" HEAD COLOGNE

WHOLESALE 16/3 per dozen. RETAIL 2/- per bottle.

BONDED PRICES ON APPLICATION.

H. BRONNLEY & CO. Ltd., ACTON LONDON, W.





pprement to the Onemist & Druggist, January 21, 1911,

Let us help you keep in touch

LWAYS the best form of Advertising is that which will not only create new business but assist you in the retention of the old.

You must never forget that there are other people out to get business besides yourself, and that they will assuredly "snap" yours if you fail to "keep in touch."

Did those "other people" not exist, there would be no necessity for advertising, but—as they do, the need is ever present.

Were you on terms of personal friendship with all your customers that lever would be a great assistance in the retention of their custom, but—if you were, your circle of friends would be enormous, or your turnover very small!

It is not enough that you satisfy the casual customer, you must remind him time and time again of that satisfaction.

The Public memory is short, but don't let the Public forget you. Remember always, if they do, that that forgetfulness is your competitor's opportunity.

To assist remembrance there is no better medium than

"Monthly Jottings"

which is so designed that it becomes peculiarly "your own" Journal, and so distributed (only to one man in a district) that the value of individuality is not depreciated by overlapping. To your regular customer it will be a constant reminder of your presence and the service which you offer—more, it is so written and compiled that it will materially assist the "desire to purchase."

To the household who buy from "the other fellow"—it will certainly prove a powerful influence in inducing them to test your service by comparison.

Your own name and your own specialities can always be identified therewith and, having in the make-up Editorial matter of real interest, it will always prove a welcome visitor.

Being designed for the many, and adapted to each individual case, it has that personal touch which could only be obtained by one other method, the issue of your own publication, and that would prove prohibitive in cost.

"Monthly Jottings," in short, is a real aid in business building and expansion, and we supply at the following prices:—

500 per month, 12/6 1,000 ,, ,, 18/6 2,000 per month, 15/6 per thousand. 5,000 ,, ,, 14/6 ,, ,,

On the other side, we have reproduced the front pages of three recent issues and, to-day, we are offering additionally—

A De Luxe edition, on superior paper, and with specially designed cover-

250 per month, 18/6 500 per month, 35/- 1,000 per month, 50/- Let us help you to "keep in touch"—a line will bring you full details and specimens per return.

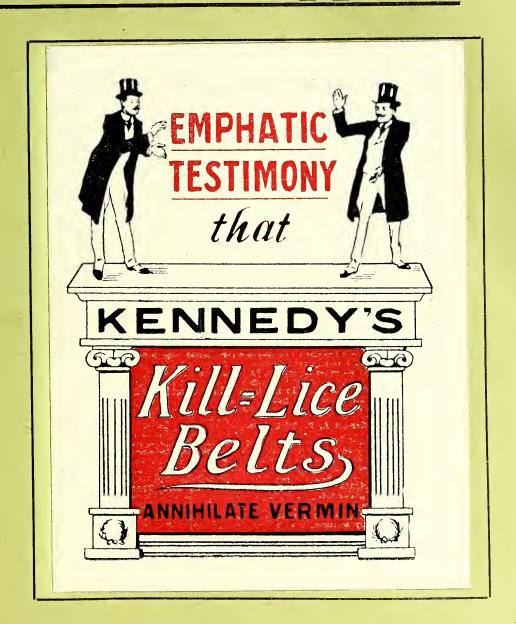
Advertising Service

60, Tennyson Road,



Read this and Send for Supplies





Copies of this leaflet supplied gratis with all orders

Service Manufacturing Co., LIVERPOOL

See overleaf for Terms and Wholesale Stockists.



A Word with You, Please

Sell The BEST and The BEST ONLY!

WE RECOMMEND you to Stock and Push

Kennedy's Kill-Lice Belts

Cost to You - - 12/- per Dozen

With an Order for 3 Dozen, you receive in addition:

1-Doz. Belts as Bonus, Special Window Poster; and Leaflets as Shown on other side.



Special Note for Ucalites:



UCAL Sells and Recommends

KENNEDY'S BELT



Now Ucalites, Keep the Ball Rolling; if every member will sell one belt only per week, his company, therefore himself, will benefit to the extent of several hundred pounds per annum.

Send an Order to UCAL To-day!





Send an Order To-day
The Boys insist on Kennedy's

WHOLESALERS:

LONDON.

BUTLER & CRISPE.
BARCLAY'S.
EVANS, SONS, LESCHER & WEBB, LTD.
NEWBERY'S.
SANGER'S.

MANCHESTER.

CLUNIE & CO., LTD.
HEATH BROS.
MILLNER.
QUILLIAM & CO., LTD.
J. WOOLLEY, SONS &
CO., LTD.

J. & J. THOMPSONS, LTD. SUMNER & CO., LTD.

LIVERPOOL.

AYRTON, SAUNDERS & CO.
CLAY, DOD & CO.
EVANS, SONS, LESCHER &
WEBB, LTD.
ROWAND & CO.
J. THOMPSONS, LTD.
SUMMER & CO. LTD.

BIRMINCHAM.

Cuxson, Gerrard & Co.

LEEDS.

SWALES & Co.
HIRST, BROOK & HIRST.
Or direct from—
THE SERVICE
MANUFASTURING CO.,
2, Park Rd., LIVERPOOL.



Cable
Address:
"SELGOG
LONDOM"



Telephone 2215 LONDON WALL.

JOHN LORIMER

BALFOUR HOUSE,

119 Finsbury Pavement, London, E.C.

Drugs & Chemicals for all Markets.

Inquiries and Correspondence invited from the

WHOLESALE AND MANUFACTURING TRADES.

ARGENTUM NUCLEINATE

1 oz. and 1 lb. bottles.

ACETOPYRIN ASPIRIN ACID ACETYLSALICYLIC

SUPER P.B. QUALITY, British Make, Bulk and Tablets, CALCIUM LACTATE B.P.

ACID MOLYBDIC AMMON. MOLYBDATE.

DIAMIDOPHENOL

(AMIDOL)

BISMUTH

SALTS

BROMIDES

STYPTIC PENCILS

Stop flow of blood at once.
SURGICAL FORCEPS,
MANICURE FLEXIBLE
FILES,
RUBBER GOODS,
etc. etc.

Cable Address: "SELGOG LONDON." Telephone: 2215 LONDON WALL.

ESTABLISHED 1870.

JOHN LORIMER

BALFOUR HOUSE,

119 FINSBURY PAVEMENT LONDON, E.C.

Drugs & Chemicals for all Markets.

Inquiries invited from all Wholesale & Manufacturing Trades.

Ar gentum Proteinate

(PROTARGOL)
Contains 8 % Silver. A
reliable & satisfactory
British product.

BARBITONE HEXAMINE SALOL

FORMALIN

MINT TABLETS
HÆMOGLOBIN
LECITHIN
PEPSINES

NARGENTOL

Contains 24 % Silver, with Protein obtained from Wheat. The most important and satisfactory of all Silver Salts.

In I oz. and $\frac{1}{2}$ oz. bottles.

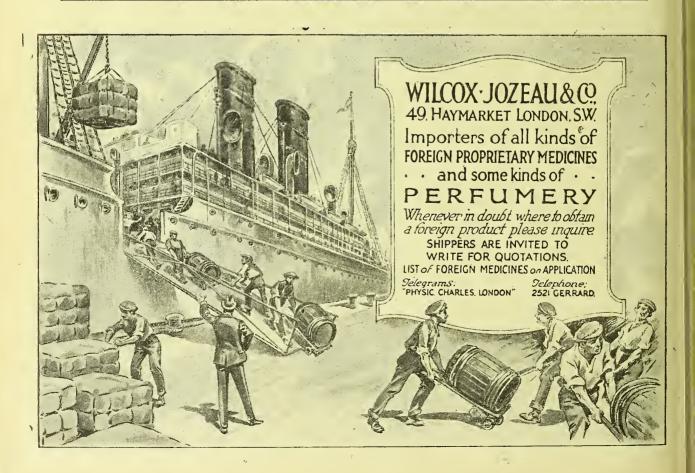
ADEPS LANÆ B.P.

(LANOLINE)

Anhydrous and

Hydrous.





You could sell nearly every customer a jar of Resinol.

Try it to-morrow, and note the pleasant increase in the day's sales. Instruct your assistants to ask each customer if he has ever tried Resinol, and then to explain how it is a soothing, healing, antiseptic ointment, not only for Eczema, Pimples, and other skin troubles, but invaluable in every household for those constantly occurring rashes, chafings, cuts, bruises, burns, and a score of other uses. It takes the pain out at once, and stops itching instantly. With every sale of Resinol Ointment for any skin trouble you should also sell a cake of Resinol Soap. The patient should bathe the affected surface with Resinol Soap and hot water before applying Resinol Ointment.

SEND FOR A MINIATURE RESINOL SHAVING STICK

It's free. We want you to learn how this rich, creamy lather soothes and heals the face. When you have tried it you will WANT to recommend it to every man who comes into your shop.

Resinol Chemical Company,

97 New Oxford Street, London, W.C., and Baltimore, Maryland, U.S.A.

Australasian Agents: CHARLES MARKELL & CO., Sydney, N.S.W.



WE OFFER

FOR SPOT AND FUTURE DELIVERY

HYDROQUINONE
DIAMIDOPHENOL (Amidol)
EXOL (Metol Substitute)
CAFFEINE ALKALOID
FORMALDEHYDE
SALICYLATES
BROMIDES

ALSO

ALL SCARCE AND PRECIOUS DRUGS AND CHEMICALS.

American Bureau of Foreign Trade

Importers and Exporters of Drugs and Chemicals,
44 WHITEHALL ST., NEW YORK

Cable Address: "NOMEREXPO." ALL CODES.

EVANS

FOR

Fluid Extracts

EVANS SONS LESCHER & WEBB

Limited

Liverpool and London New York, U.S.A.

See also pp. 19, 36, 74, 137, 143, 146, 150, 154, 164, 173, 204, 210, 213.

HOWARD LLOYD & CO., LIMITED LEICESTER

PILLS

Pearl, Gelatine, or Sugar-coated.

SPECIALISTS IN

TABLETS

Plain or Sugar-coated.

CAPSULES

Coloured or Plain.

BEST INGREDIENTS ONLY USED QUALITY AND FINISH — SECOND TO NONE PRIVATE FORMULÆ A SPECIALITY

WRITE FOR SAMPLES AND QUOTATIONS

ADEPS LANÆ, P.B.

"FMDIDE RDAND"

BRITISH PHARMACEUTICAL LANOLINE, Hydrous and Anhydrous.

Manufactured by Qualfied Analytical Chemists.

THE ORIGINAL BRITISH MAKERS

ALSO .

"LANADEPS" or Commercial Lanoline

Specially suitable for Toilet Creams, Ointments, &c.

Samples and quotations upon application. Contracts Booked.

THE BRITISH LANOLINE COMPANY

(Howard Lloyd & Co., Ltd.)

20 Asiordby Street, LEICESTER

Telegrams: "Colloid Leicester."

The Armour Laboratory.

HEADQUARTERS

for

Pepsin-Scale or Powder.

Pepsin Essence.

Lactated Pepsin.

Glycerole Pepsin.

Nutritive Elixir of

Peptone.

Pancreatin.

Peptonising Tablets.

Animal Glandular Extracts, etc.

Red Bone Marrow Extracts.

Pituitary Liquid.

Parotid Substance.

Thyroids.

Ovarian Tissue.

Lymphatic Gland.

Chymol "The Food that builds."

Printed pamphlets giving information and clinical reports on any of our preparations supplied gratis on request, to Medical Men and Chemists only.

Special Department for Rush Orders.

Telegrams:—"Armorum-Cent," London.

Telephone:—5900 Holborn.
Private Branch Exchange.

Address all Communications: -Atlantic House, Holborn Viaduct, E.C.

ARMOUR AND COMPANY



Daggett & Ramsdell's

PERFECT

COLD CREAM

ON THE P.A.T.A.

Always Selling
Always Satisfies Customers
Yields a Good Profit

From all Wholesalers, or direct from the Sole Agents

The A.D.S. Co.

6 Northumberland Avenue, London, W.C.

CELLONITE COMPANY, DREYFUS & COMPANY, BASLE. Works at Basle (Switzerland) & Belfort (France).

CELLULOSE ACETATES "DREYFUS" ACETIC ANHYDRIDE. TRIACETINE, SUBSTITUTES.

British Cellulose & Chemical Manufacturing Company, Limited,
11 Waterloo Place, London, S.W. Tel. No.: Regent 4046 (2 lines).

MENUTH SALTS.

ALFRED WHITE & SONS,

Established 1775.

Manufacturing & Export Chemists.

Offices and Warehouse: 29-81 ALLEN STREET, GOSWELL ROAD, — LONDON, E.C. —

Works and Wharf:

YIEWSLEY

CHEMICAL WORKS,
WEST DRAYTON, MIDDX.

Telephone: 1315 Holborn.

Telegrams:
"Ether Methylated London."

AETHERS.

ZINCI SULPH, PUR.

PRICE LISTS FREE ON APPLICATION.

Evans Sons Lescher & Webb

LIMITED.

Liverpool and London. NEW YORK, U.S.A., WILLIAM STREET.

CAPITAL - £600,000.

OFFICES and WAREHOUSES.

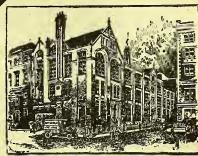


Hanover St., and Seel St., Liverpool.

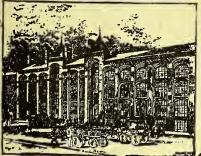
DIRECTORS:

SIR EDWARD EVANS (Chairman) EDWARD ALFRED WEBB WILLIAM PATERSON EVANS ALFRED BICKERTON EVANS JAMES HERBERT E. EVANS THOMAS EDWARD LESCHER HAROLD EDWARD WEBB JOHN NEVETT EVANS KENNETH W. E. EVANS STEPHEN FOSTER WEBB

OFFICES and WAREHOUSES.



TINCTURE HOUSE



26 to 38 Wood St., Liverpool.

Under the personal supervision of Directors as above.

> Chemical Factory: ELLESMERE WORKS. RUNCORN.

BACTERIOLOGICAL LABORATORIES and DRUG FARM,

Crofton Lodge, Runcorn.

PHARMACEUTICAL LABORATORIES and DRUG MILLS.



23 to 29 Fleet St., Liverpool,

Wholesale Druggists

Manufacturing Chemists.

Lists for all Departments in English, Spanish, Russian, etc. etc.





BRAND

Corbyn, Stacey

Telephone No.: East 1833.

Telegrams; "Colocynth, Step, London."

CORBYN'S Compound Syrup of Figs.

A PERIENT medicines until recent/ years were generally unpalatable and occasionally very nauseous, but with the advances in pharmacy it has been increasingly possible to present medicines in a more palatable form, at the same time maintaining their efficiency.

CORBYN'S NEW Compound Syrup of Figs is composed of carefully selected fruits and spices of Eastern origin, and has been pronounced by those who have already had supplies a particularly luscious and elegant form of this time-honoured remedy.

We have been told by several pharmacists that it has met with general appreciation, and although perfectly adapted for administration to adults by virtue of its palatability, has leapt into the immediate favour of all the young folk, and we confidently recommend it to customers who are looking for a line that will please their clients.

Packed in white glass panelled flats, elegantly labelled and capped, own name on three dozen.

2 fl.-oz. 4/- per dozen. 6 fl.-oz. 8/3 per dozen. 4 fl.-oz. 6/9 ,, 8 fl.-oz. 11/3 ,, (Own Name and Address on 3 dozen.)

Corbyn's Toilet Lanolin.



SCENTED or UNSCENTED.
PRICES.

1-oz. tubes 4/6 per doz. Cartons 6d. per doz. extra-2-oz. ,, 7/- ,, ,, ,, 9d. ,, ,, ,,

In Opal Octagon Pots with Aluminium Screw-Caps, 1-oz. 4/3 per dozen.

(Own Name and Address on 3 dozen.)

CORBYN'S LANOLIN.

HYDROUS.

ANHYDROUS.

ADEPS LANÆ B.P.

PRODUCED in our own laboratories from British Material by British Labour with British Capital.

"Corbyn, Stacey & Co., Ltd., London, are offering Lanolin made by special plant erected in their factories for this purpose, to take the place of what was previously imported from Germany. They advise us that it consists of purified cholesterin fat, obtained from sheep's wool, which contains 45 per cent. of its weight of this substance, and is extracted by repeated washings. The crude wool-fat has then to be submitted to numerous purifying processes, and finally emerges as Lanolin, or Adeps Lanæ, B.P. It answers all B.P. requirements, is almost inodorous, and is pale in colour."

Pharmaceutical Journal, June 24th, 1916.

"The sample which we have seen is a first-rate product, and bears out the contention of the makers. It possesses all the desirable qualities of the best quality Lanolin—the faint pleasant characteristic odour, the cream colour and the ideal consistency. We doubt if a better Lanolin could be produced."

Pharmaceutical Journal, July 10th, 1915.



CORBYN'S Lanolin Vanishing Cream.

In Opal Octagon Pots with Aluminium Screw-Caps, 1-oz. 7/. per doz.

BRUNTON'S WHARF,

COMMERCIAL ROAD EAST, LONDON, E.

R. MORRISON & CO.

Chemical and Drug Merchants and Importers,

Telegrams: "Sulphur, Fen, London." Telephone: 171 Avenue.

2 FEN COURT, LONDON, E.C.

Solicit inquiries from the Wholesale Trade for the following.

CHEMICALS

Acetanilide

Acid. Acetylo-Salicylic

- " Benzoic
- Boracic
- Citric
- Oxalic
- Salicylic

Tartaric

Atropine

Benzoate of Soda

Bismuth Salts

Borax

Bromide Salts

Caffeine

Camphor

Chloral Hydrate

Cocaine Salts

Codeine Salts

Cream Tartar

Formaldehyde

Glycerophosphates

Hexamethylenetetramine

Iodoform

Lithia Carbonate

Methyl Salicylas

Morphia Salts

Phenacetine

Phenazone

Phenolphthalein

Potass. Bromide

Potass. Iodid.

Permanganate

Pyramidon

Quinine

Resorcine

Salicine

Salicylate Soda

Salol

Saltpetre

Santonine

Strychnine

Sugar of Milk Sulphate of Copper

Sulphonal

Vanilline

DRUGS, &c.

Adeps Lanæ Agar-Agar Antimony, Crude Balsam, Capivi

Peru Tolu

Beeswax Cantharides Cardamoms Cascara Sagrada Ergot of Rye Extract Male Fern Honey

Insect Flowers Ipecacuanha

Japan Wax

Liquorice Juice

Lycopodium Manna

Menthol Opium

Otto of Rose

Ouicksilver

Rhubarb

Saffron

Senega Root

Senna

Vanilla

ESSENTIAL OILS

Aniseed Bergamot Camphor Eucalyptus Lavender Lemon Orange Otto of Rose Peppermint Safrol Sandalwood

CASTOR OIL.

COD LIVER OIL.

OLIVE OIL (all grades).





ROBERTS & CO. PHARMACIENS, NEW BOND ST. PRUE DE LA PAIX 5, LONDON PARIS.

SYRUP



(ROBERTS)

recognised by the Medical Profession as

THE BEST TONIC.

In 8 oz. and 16 oz. bottles, of all Wholesale Houses.

We invite inquiries for

NEW ® RARE MEDICINES OF FOREIGN ORIGIN.

We can supply from our Stocks the following—

AGONOL COGNET AMBRINE THAOLAXINE HECTINE NALINE BIOSOL DR. CHAUMIER'S CALF LYMPH BROMOCARPINE
GALYL
HISTOGENOL NALINE
LEVURINE COUTURIEUX
LACTEOL
PULVI-LACTEOL

Prescriptions Dispensed for the Trade.





Notable British Products

Anæsthetics Duncan Chloroform.

Ether.

Ethyl Bromide.

Ethyl Chloride.

Organo-therapeutic
Preparations
Duncan

From Cerebral Substance. Duodenal.
Lymphatic Gland. Bone Marrow.
Orchitic Substance. Ovarian Substance.
Pancreas. Pituitary Glands. Prostate
Gland. Suprarenal Gland. Thymus
Gland. Thyroid Gland.

Full literature sent on application.

Tuberculins Vaccines

Prepared in the Laboratory of the Royal College of Physicians. Edinburgh.

Special List, with Prices and Literature, sent on application.

Pharmaceutical Preparations

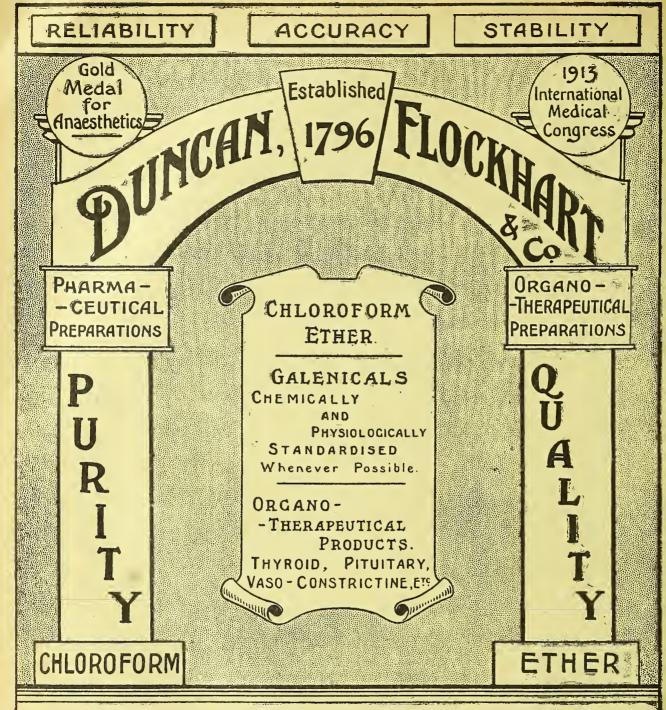
as prescribed by the

B.P. 1914

are guaranteed to conform in every respect to the official requirements as manufactured by

Duncan, Flockhart & Co.

Edinburgh & London (155 Farringdon Rd., E.C.)



DUNCAN, FLOCKHART AND COMPANY.

Manufacturing Chemists.

EDINBURGH & LONDON.

London Address, 155, Farringdon Road.



London Manager, A Proctor Atkinson.

J.W. DRYSDALE & SONS

16 FISH STREET HILL, LONDON, E.C.

IMPORTERS AND EXPORTERS.

DRUGS, FINE CHEMICALS, SYNTHETICS, BORAX, &c.

OPIUM, MORPHIA, COCAINE, CODEIA, SALICYLATES, ALKALOIDS, BALSAMS, ERGOT OF RYE, JALAP, &c.

TELEGRAMS: "FLORENTINE, LONDON."

EVANS

FOR

Pharmaceutical Preparations.

EVANS SONS LESCHER & WEBB Limited Liverpool and London New York, U.S.A.

See also pp. 19, 36, 74, 133, 137, 146, 150, 154, 164, 173, 204, 210, 213.

THE

WHITE TAR CO.

4 Cliff Street, New York City,



Importers and Exporters of

Sulphate of Copper Bichromate of Soda Bichromate of Potash Chlorate of Potash Chlorate of Soda Chloride of Lime Caustic Soda Chrome Alum Naphthaline

ALL HEAVY CHEMICALS

GALENICALS

FROM CHEMICALLY AND PHYSIOLOGICALLY TESTED DRUGS.

Willows, Francis, Butler & Thompson, Ltd., 40 Aldersgate Street, LONDON, E.C.

スススススススススススススススススススススススススススススススススススス

WOODWARD'S RIPE WATER"

ESSRS. W. WOODWARD, LIMITED, beg to notify that under the extreme pressure of War conditions they are from this date obliged to raise the price of GRIPE WATER to

THESE. ARE PROTECTED PRICES.

140/- per gross.

12/8 per dozen for quantities less than one gross (Supplied by the Wholesale houses only). 1/3 per bottle fixed and minimum price to the public.

79 FORTESS ROAD, LONDON, N.W.

January 19, 1917.

And NOTTINGHAM.

It PAYS to Stock

Ombridge's

The Original Lung Tonic.

The public demand is greater than ever.

W. T. OWBRIDGE, Ltd., The Laboratory, HULL.



ESTABLISHED 1888.

INCORPORATED 1908.

FREDK. BOEHM, LIMITED, 16 JEWRY STREET, LONDON, E.C.

Telegrams: "Bissula, Telew, London."
Telephone: Avenue 1365 (three lines).
Telewriter: - Walbrook 596.

CHEMICALS AND PHARMACEUTICAL PREPARATIONS

ACETANILID,
ACID ACETIC.
ACID ACETO-SALICYLIC.
ACID BENZOIC,
ACID PYROGALLIC.
ACID SALICYLIC.
ACID TANNIC,
APIOL GREEN.
BISMUTH SALTS.
BROMIDES.
CADMIUM SULPHIDE.
CAMPHOR MONOBROM.
CHLORALHYDRATE.

ESERINE SALTS.
EUCALYPTOL.
FORMALDEHYDE,
GLYCERINE.
GLYCEROPHOSPHATES.
HEXAMINE.
HYDROQUINONE.
IODINE PREPARATIONS,
LEAD ACETATE.
METHYL SALICYLATE.
MOLYBDATES.
PARAFORMALDEHYDE.
PARALDEHYDE,

PHENACETIN.
PHENAZONE.
PHENOLPHTHALEIN.
PILOCARPINE SALTS.
POTASSIUM FERRICYANIDE
PYRAMIDON.
SALOL.
SODIUM BENZOATE.
SODIUM HYDROXIDE.
SODIUM HYPOSULPHITE.
SODIUM SALICYLATE.
TERPINHYDRATE.
VERATRINE.

ESSENTIAL OILS, ETC.

BERGAMOT. CAJEPUT. CARAWAY. CITRAL.

LEMON. MIRBANE. MUSK, ARTIFICIAL. NUTMEG. ORANGE. PATCHOULI. TERPINEOL. VANILLIN.

OILS AND SOAPS.

ALMOND OIL, SWEET. CASTOR OIL, MEDICINAL NUT OIL. OLIVE OIL. PARAFFIN JELLY. PARAFFIN, LIQUID, PEACH KERNEL OIL. MARSEILLES SOAP.

1. TANKETER TO ...

DRUGS, ETC.

MILK SUGAR. MACE PASTE. LIQUORICE JUICE. SHERRY B.P.

CHLOROPHYLL.

NULOMOLINE.

THE BEST GLYCERINE SUBSTITUTE.

STOCK IN LONDON.

WHOLESALE QUANTITIES ONLY.

PEPSINE-STEARNS, B.P.& U.S.P. in SCALE, POWDERED & GRANULAR

FREDERICK STEARNS & Co. invite your attention to their comprehensive line of Pepsines and allied products, such as—

Pepsine, Scale, 1: 7500; 1: 3000; 1.6000.

Pepsine, Powdered, 1:3000, 1:6000, & 1:10,000—any strength.

Diastase, Powdered, all strengths.

Pancreatin. Hæmoglobin.

Beef Peptone, Powdered or Paste.

Thyroid Glands, B.P. and U.S.P.

Ox Gall, Powdered.



Our sixty years of experience in the manufacture of first-grade pharmaceuticals places us in a position to produce goods of the highest quality, and with the greatest economy.

Our Pepsine Department is thoroughly equipped to properly handle the largest and smallest of orders, and we solicit an opportunity to quote on your requirements.

FREDERICK STEARNS & COMPANY

Manufacturing Chemists, DETROIT, MICHIGAN, U.S.A.

358 Harris St., Pyrmont, Sydney, N.S.W. 8 Waterloo St., Galcutta. P.O. Box 305 Cape Town. Windsor, Ontario, Canada.

**Agents for Great Britain & France: R. W. Greeff & Co., Thames House, Queen Street Place, Loadon, E.C.

EVANS

Drugs and Pharmaceutical Preparations.

EVANS SONS LESCHER & WEBB

New York, U.S.A.

See also pp. 19, 36, 74, 133, 137, 143, 150, 154, 164, 173, 204, 210, 213.

JOHNSON'S PURE CHEMICALS.

ACID ACETIC.

AMMON. SULPHOCYANIDE.

POTASS. SULPHOCYANIDE.

SILVER PROTEINATE.

ACID MOLYBDIC.

AMMON. MOLYBDATE.

ALL CHÉMICALS FOR PHOTOGRAPHY, PROCESS, ASSAYING, MINING, etc. etc.

Price List on Application. Special Terms for Contracts.

JOHNSON & SONS,
Manufacturing Chemists, Ltd.

Cross Street,
Finsbury,
LONDON.

ÉTABLISSEMENTS CHATELAIN,

2 & 2 bis RUE DE VALENCIENNES, PARIS.

Sole Manufacturers of

JUBOL

Re-education of the Intestine.

Constipation, Enteritis. Hæmorrholds,
Indigestion. Skin Blemishes, &c.

Price 5/- per box.

GLOBÉOL

Powerful Blood Tonic.

Anæmia, Nervous Exhaustion, General
Debility, Tuberculosis Convalescence,
etc.

Price 5/- per bottle.

PAGÉOL

Powerful Urinary Antiseptic.
Gonorrhea, Cystitis, Prostatitis, Catarrh
of the Bladder, Renal Tuberculosis,
Hypertrophy of the Prostate, etc. etc.

Price 5/- and 11/- per box.

JUBOLITOIRES

Scientific Suppositories.

Hæmorrhoids, Rectitis, Anal Fistula,
etc.
Anti-hæmorrhagic, Sedative, De-congesting.
Price 5/- per box.

URODONAL

Powerful Uric Acid Solvent.
Rheumatism, Gout, Arterio-solerosis,
Stones, Gravel, Sciatica, Neuralgia and
all Uric Acid disorders.
Price 51- and 121- per bottle.

VAMIANINE

New Scientific Preparation for Syphills, Chronic Skin Affections, Psoriasis, Eczema, Acne, etc.

Price 1 1/- per bottle.

GYRALDOSE

Antiseptic for local Gynæcological use. Leucorrhœa, Metritis, Salpingo-Ovaritis, Discharges, etc.

Price 4/- per box.

FANDORINE

Internal remedy for Women's diseases, Metrorrhagia, Dysmenorrhoza, Irreguiarities, Pregnancy, Lactation, Pains, etc. etc. Price 5/- and 11/- per bottle.

SINUBÉRASE

Remedy for Intestinal Disorders, Dysentery, Diarrboz, Dyspepsia, Enteritis, Infectious Diseases, Skin Eruptions, etc. Price 5/- per bottle.

FILUDINE

Specific for the Liver.

Malaria, Diabetes, Cirrhosis, Sluggish 5. Liver, Tuberculosis, etc.

Price 11/- per bottle.



BRITISH AND COLONIAL AGENTS-

Foreign Chemists, 164 PICCADILLY, LONDON, W.

Stocked by all Wholesalers. Now being largely advertised.

SANTROCYL CAPSULES

(Vide "The Lancet," No. 4795, Vol. CLXXXIX., and "Medical World," Vol. VI., No. 16.)

Boxes of 24 Capsules

14/-

per doz.



Boxes of 36 Capsules

18/-

per doz.

To be obtained from

LONDON: May, Roberts & Co., Ltd.; Barclay & Sons, Ltd.; Butler & Crispe; Sangers; Francis Newbery & Sons, GLASGOW: Brown, Gray & Co., Argyle St. LIVERPOOL: Ayrton, Saunders & Co., Ltd. SOUTH AFRICA; Aerators (S.A.) Ltd., 36 & 36a Fletcher's Chambers, Cape Town; (Cape Province) Ashley Miller, 35 Hout St Cape Town. AUSTRALIA: Francis Longmore & Co., Bourke St., Melbourne.

after meals.

QUININE & QUININE SALTS

Quality and Colour Unsurpassed.

Sugar-coated Quinine Tablets. Sugar & Silver-coated Quinine Pills. Gelatine-coated Oval Quinine Pills.

CINCHONIDINE CINCHONINE OUINIDINE -

& SALTS

SAMPLES AND PRICES ON APPLICATION.

BANDOENG QUININE FACTORIES (BANDOENG, JAVA AMSTERDAM, Keizersgracht 173.

Telegrams: "Kininefabriek Bandoeng"; "Schalkwyk Amsterdam."

HENRI PELLIOT & CIE,

27 rue des Francs Bourgeois, Paris.

CREAM OF TARTAR 98/99%
CITRIC ACID
TARTARIC ACID

ALL ALKALOIDS & CHEMICALS

Telegrams: "CHARPELLIO, PARIS."

Ampoule Files

THE GREATEST PRODUCTION
IN THE WORLD.

THE BEST. THE CHEAPEST.

Prices and Samples sent on application to—SIM LTD., Morges, Switzerland.

Major CYRIL SANKEY, late Royal Artillery, General Manager.

THE

BRITISH WAX REFINING

COMPANY, LIMITED.

WHITE BEESWAX YELLOW BEESWAX

Slabs, Bars, Tablets or Discs

CERESINE WAX Bleached Carnauba Wax Carnauba Wax Residues

All Waxes Refined, Bleached and Manufactured at our Works, REDHILL, SURREY.

Registered Office:

5 RANGOON ST., LONDON, E.C.

Since 1780 we have been continuously associated with the handling of Drugs and the manufacture of Pharmaceutical' Preparations, and during the past threequarters of a century or more have specialised in the production of ALKALOIDS, ANÆSTHETICS. ANTISEPTIC LISTERIAN and other SURGICAL DRESSINGS. Undernoted is a list of some of the articles which we can offer to advantage:-



Morphine

Codeine

Apomorphine

Aceto-Morphine

Ethyl-Morphine

Cotarnine

Narcotine

Papaverine

Berberine

Emetine

Homatropine

Hydrastine

Strychnine

Veratrine

Chloroform & Ether

of highest possible purity, for Anæsthesia.

Surgical Dressings

in which uniformity of medication is guaranteed.

Surgical Catgut

in every form. Specially selected and tested.

Aloin

Caulophyllin

Cimicifugin

Chrysarobin

Euonymin

Hamamelin

Iridin

Leptandrin

Podophyllin

Salicin

Scammony

Resin

Spirituous Galenicals in bond

For Wholesale and Export only.

J. F. MACFARLAN & C?

Manufacturing Edinburgh & London.

THE BOMBAY AGENTS' COMPANY, 170 HORNBY ROAD, BOMBAY,

with established Offices in Calcutta and Colombo, are open to accept further sole agencies for India and Ceylon. This Company is owned by a well-known European, who has exceedingly good connections all over India.

Manufacturers of Patent and Proprietary Articles, Chemicals, Drugs and Galenicals, cannot obtain better representation in India than that now offered.

OGRESPONDENCE INVITED.

NATIONAL ANILINE & CHEMICAL

COMPANY.

100 WILLIAM STREET, NEW YORK.

Cable Address-"JUBILANT, NEW YORK."

London Agents: SAMUEL LAMBERT & CO., 14 Mincing Lane, E.C.

MORPHIA, COCAINE, OPIUM, ALKALOIDS, ALKALIES, Etc.

IMPORTERS AND EXPORTERS OF CHEMICALS AND DRUGS.

HAMASAKI & CO., DAIREN, MANCHURIA

Telegraphic Address: "HAMASAKI DAIREN."

Consignments and Indents Solicited.

EPSOM SALTS, Druggist and Commercial Qualities. ZINC SULPHATE, Druggist and Commercial Qualities.

Prompt and forward deliveries.

Inquiries solicited.

WILLIAM BLYTHE & CO., LTD., CHEMICAL MANUFACTURERS. CHURCH, LANCASHIRE.

EVANS

FOR

Chemicals

EVANS SONS LESCHER & WEBB

imite

Liverpool and London New York, U.S.A.

See also pp. 19, 36, 74, 133, 137, 143, 146, 154, 164, 173, 204, 210, 213.

British Salicylates

are now of very fine quality, and we are able to offer at prices which can compete with and beat other available makes.

We shall be pleased to quote for small and large quantities.

We can also offer the following:-

Acid and Soda Benzoic Antipyrin Barbitone Beta-Naphthol Bromides Acetanilid P.B. Naphthaline Flakes and Marbles Albumen Ferrat.
Silver Proteinate
Quinine Sulphas. P.B.
Yellow Prussiate Potash
Glacial Acetic Acid
Hexamine
Hyposulphite of Soda
(Pea crysts.)

Quotations, delivered your warehouse or f.o.b. London, packing included. We trust we may hear from you.

HARTLEY FLOREY,

54 Lower Thames Street, London, E.C.

Phone: Avenue 3889. Telegrams: "Yerolftrah, Phone, London." SODA ASH

H

E

H

E

M

C

A

WE SELL:

SALTPETRE
Double Refined.
Granulated.

CAUSTIC SODA **BLEACH** BICHROMATE OF SODA BORAX

BICHROMATE OF POTASH **ALUM**

CHLORATE OF POTASH **NITRATES**

CHLORATE OF SODA LET **ALL ACIDS**

WAXES US SODA ASH QUOTE

DRUGS ON: SULPHATE OF COPPER

OUININE

SULPHATE OF ALUMINA

LOGWOOD

SULPHATE OF AMMONIA

OUEBRACHO

ANILINE SALTS & COLORS

PHARMACEUTICALS

NAVAL STORES

8-66

ANILINE OIL

SODA ASH

WE BUY:

CHEMICALS, DRUGS, NATURAL PRODUCTS, ETC. ETC.

If you wish to sell us, make us detailed quotations.

IADERO BROS. INC.

115 Broadway, NEW YORK (Dept. 4).

Codes: WESTERN UNION; ABC.

Cable Address: "MADEROBRO"

'PHONE: WILLESDEN 1177.

S. Tolkowsky,

57 St. Gabriel's Rd., CRICKLEWOOD, LONDON, N.W.

(London Representative of I. L. Goldberg, Russia.)

Correspondence in English, French, Spanish, Italian, Portuguese, Russian,

INOUIRIES SOLICITED FOR—

RUSSIAN CRUDE DRUGS

Wormseed (Semen Contra) Hyoscyamus Leaves Elderflowers (Flores Sambuci) Lycopodium Aniseed Ergot of Rye Liquorice Root Carbonate of Potash Ouince Seed Calamus Root Boletus Cervinus

Gum Galbanum

- Ammoniac
- Tragacanth

Frangula Bark

Flores Cyanae (Cornflowers)

Cantharides

Isinglass: Salianski Osietr Samovi

Blood Albumine

Musk Cabardine

Coriander Oil

Anise Oil

Soap Root

STOCKS IN LONDON.

See also Advertisement on opposite page.

Santonine Pure Crystals.

EXCLUSIVE EXPORTER FROM RUSSIA TO THE WHOLE WORLD:

I. L. GOLDBERG

(Petrograd, Moscow, Wilna, Odessa).

LONDON REPRESENTATIVE:

S. TOLKOWSKY,

57 St. Gabriel's Road, Cricklewood, London, N.W. - (Telephone: WILLESDEN 1177).

Correspondence in English, French, Spanish, Italian, Portuguese, Russian, or Dutch.

AUTHORISED AGENTS:

FRANCE: STRASS & SASSÉ, 54 Quai de Jemappes, Paris.

ITALY: FRENCH & COTTA, 19 Via S. Vittore al Teatro, Milan.

INDIA: A. P. C. TOLKOWSKY, Dadina Buildings, 107/109 Dhunji Street, Bombay.

JAPAN: L. POISNER, Kawaguchi No. 4, Osaka.

U.S.A.: B. PRESMAN, 39 West 91st Street, New York.

Stocks in London, Paris, Milan, Bombay, Osaka, & New York.

Season-1917.



GOD LIVER OIL

GUARANTEED GENUINE.

Manufacturers:

BRODR. AARSÆTHER, Aalesund, Norway.

Wholesale only.

No Retail Orders Executed.

Agents: FREUDENTHEIL & CO., 21 Mincing Lane, LONDON, E.C.

Tel. Add.: "FREUDENRUF." Codes

Codes used: ABC, 4th & 5th Edit.; and Private

Tel. 12513 CENTRAL

J.M. STEEL& CO.

3 THAMES HOUSE, QUEEN ST. PLACE, LONDON, E.C.

NAPHTHALINE



FLAKES CRYSTALS POWDER BALLS CRUDE

NAPHTHA

SOLVENT HEAVY HIGH FLASH

CARBOLIC & CRESYLIC

Buy from First-Hand Suppliers.

Telephone Nos.: City 7120 and 7121.

Telegrams:
"Coaltar, Cannon, London."

EVANS

FOR

Pills and Tablets

EVANS SONS LESCHER & WEBB

Limite

Liverpool and London New York, U.S.A.

See also pp. 19, 36, 74, 133, 137, 143, 146, 150, 164, 173, 204, 210, 213.

THE

BRITISH DIAMALT COMPANY

ARE NOW SELLING DIRECT TO CHEMISTS

- 1. Dry DIAMALT
- 2. DIAPARAFFIN
- 3. MALTOLACTON
- 4. Liquid DIAMALT
- 5. Liquid DIAMALT (with 15% by weight of Cod Liver Oil).
- 6. Liquid DIAMALT (with 33% by weight of Cod Liver Oil).

ON P.A.T.A. LIST.

Head Office: BISHOP STORTFORD

Theobromine Pure Alkaloid.

Theobromine Sodio-Salicylate

(chemically the same as Diuretine).

Tuberculine

(prescription Denys, Koch and Roell).

Societeit voor Chemische Industrie Katwijk, KATWIJK-AAN-ZEE, HOLLAND.

Ferdinand Roques

(ESTABLISHED 1846)

PARIS.

Factory: St. Ouen.

MANUFACTURER OF
PURE PHARMACEUTICAL CHEMICALS

Gold Medals; Paris 1889, 1900.

Grand Prix, Turin, 1911.

Hors Concours, Lyon, 1914.

COCAINE

ATROPINE PILOCARPINE

AND THEIR SALTS

SPARTEINE

(ROQUES)

OTHER SPECIALITIES:

REFINED CAMPHOR, IODIDES, IODOFORM, IODOTHYMOL, BROMIDES, BROMOFORM, BISMUTH SALTS,

CACODYLATES, METHYLARSENATES

Sole Agents for U.K. (Wholesale Only):

W. CHARITY & SONS, 14 HARP LANE, LONDON, E.C.

Tel. No.: Avenue 4859. Tel. Ada: "Charity London." A B C, and Lieber's.



FINE CHEMICALS for Scientific purposes and for College and Technical Institute Laboratories.

PHARMACEUTICAL CHEMICALS of Standard Quality for Manufacturing and Dispensing.

PHOTOGRAPHIC CHEMICALS in bulk or ready Packed for Retailing.

RADIUM and RADIO ACTIVE MINERALS.

MINERAL and GEOLOGICAL SPECIMENS and SETS.

TECHNICAL CHEMICALS for Glass, China, Enamel, Varnish, and other manufacturing purposes.

AGRICULTURAL CHEMICALS, Fertilizers, etc.

Contractors to H.M. Government.
Price Lists sent free on Application.

HARRINGTON BROS., LTD.,

Manufacturing Chemists,

4 OLIVER'S YARD, CITY ROAD,
Telephone No.: LONDON, E.C. Telegraphic Address'
10555 CENTRAL LONDON, E.C. 'SICCATIVE LONDON'

BEFORE YOU PLACE THAT NEXT ORDER

See our samples and quotations of-

PURE MEDICINAL WHITE OIL. (Odourless-Tasteless-Colourless).

FINE ODOURLESS WHITE OIL.

HALF-WHITE OILS. TOILET PARAFFINS.

(Delicately perfumed and coloured).

LANOLINES.

(Wool-fat, Hydrous and Anhydrous).

Our prices will save you MONEY. Why not send us your inquiry now?

BARTOLINE (Hull), LTD.

Importers and Manufacturers,
2 Myton Place,
HULL.

Bartoline Oils & Preparations are BRITISH to the core.

[Established 1876]

WHOLESALE QUANTITIES ONLY.

Seasonable Products

Inhalone

A semi-solid inhalant with an anti-bacterial and soothing local action. The active ingredients are eucalyptol, menthol and phenol—no cocaine—in an aromatised soft paraffin base.

Issued in a collapsible tube with a nozzle specially designed to facilitate application.

Protected at - 1/-M.W.P. - 8/3 per doz.

Stimulating Embrocation

An emulsion of oil of origanum, camphor, rectified turpentine, etc., with ammonia—an ideal household liniment. Issued in 4-oz. glass-stoppered bottles of distinctive shape.

May be recommended to recruits and volunteers to relieve stiffness due to unaccustomed exertion.

Protected at - - 1/- M.W.P. - 8/1 per doz.

Mentholated Bronchial Lozenges

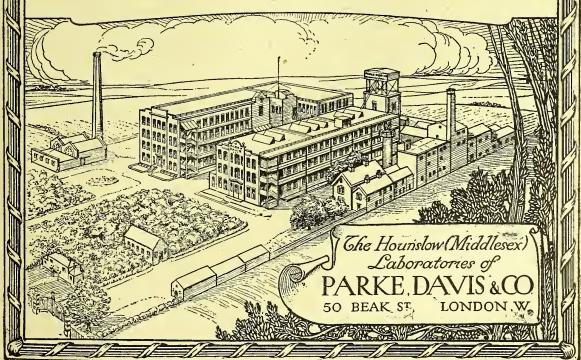
A high-class product—actually a compressed tablet—of a shape particularly convenient for retaining in the mouth. The formula is disclosed and the properties of most of the ingredients are well-known to the public. Menthol and a small proportion of extract of capsicum give a warming effect which is generally appreciated.

Mentholated Bronchial Lozenges are issued in flat boxes of 36 and packed in display outers. The convenience of the container appeals to the soldier, and large quantities have been sold in the vicinity of camps.

Protected at 91d.

M.W.P. - 5/8 per doz.

WRITE TO-DAY FOR FURTHER PARTICULARS AND CARRIAGE PAID TERMS.



Precipitated Chalk

CRETA



PRÆCIP.

"Sturge's Chalk"

THE LIGHTEST ON THE MARKET.
ALL GRADES FROM LIGHTEST TO VERY DENSE.

MANUFACTURED BY

JOHN & E. STURGE Ltd., BIRMINGHAM.

Agents:

The National Aniline & Chemical Co., 100, William St., New York. Alphonse Ruch, 63, Rue des Archives, Paris.

ALSO MANUFACTURERS OF

CITRIC ACID, BICARBONATE OF POTASH, ROCHELLE SALTS and pulv. SEIDLITZ, FLUID MAGNESIA, and "CITRATE OF MAGNESIA," and other Effervescent Saline Preparations.

Telegrams "Sturgeon, Birmingham."

Telegrams: Inland:/ "RITEP, CRACE, LONDON." Foreign: "RITEP LONDON."

PETRI BROTHERS

Telephone: Avenue 51.

39 LIME ST.

LONDON, E.C.

A B C Code used.

Solicit inquiries for the following:

OXALIC ACID.

BARIUM CHLORIDE.

FORMALDEHYDE.

PRECIPITATED CHALK.

BEECHWOOD CREOSOTE B.P.

MAGNESIUM SULPHATE.

MAGNESIUM CHLORIDE.

CARBONATE OF POTASH

HYPOSULPHITE OF SODA.

YELLOW PRUSSIATE OF SODA and POTASH.

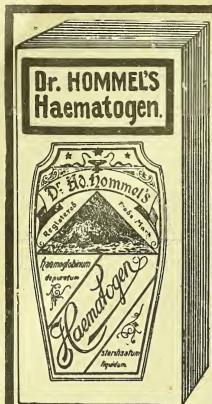
SULPHUR, Flowers and Roll.

LEAD ACETATE.

ZINC SULPHATE.

AND OTHER CHEMICALS.

WHOLESALE ONLY.



Please Note that

DR. HOMMEL'S HÆMATOGEN

is, and always has been, manufactured in SWITZERLAND

by Swiss Proprietors,

and that a continuous supply is assured.

NEITHER THE WHOLESALE OR RETAIL PRICE HAS BEEN INCREASED.

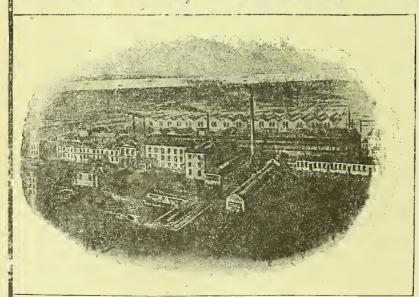
All Orders will be carefully attended to as hitherto.

Sole Agents for Great Britain, India, and Colonies:

GERTH VAN WYK & CO.,

36 & 36a St. Andrew's Hill, LONDON, E.C.

RAIMES, CLARK & CO., LTD.



Send us your inquiries for RESUBLIMED IODINE, POTASSIUM IODIDE, IODOFORM & IODINE PREPARATIONS—EXTRACT OF MALT & Combinations—GELATINE CAPSULES and all GALENICALS.

We guarantee the quality of all our drugs and chemicals, and prices are the lowest possible consistent with their quality.

RAIMES, CLARK & CO., LTD., Manufacturing Chemists EDINBURGH.

Telegrams: "Raimes Edinburgh."

'Phones: Leith 893, 894, 895.

THE ARMY

Anti-Parasitic Powder

Especially Designed for Military and Domestic Purposes.

Anti-Frost or Fire Cream

A powerful Heat Producer and Skin Stimulant. For restoring circulation to benumbed and chilled extremities.

Anti-Thirst Tablets

Quenchers of the most Intolerable Thirst and Mouth Dryness.

WRITE FOR PRICES.

We can offer advantageous prices for these lines.

SHOWCARDS SUPPLIED.

Duncan, Flockhart & Co.

Edinburgh & London (155 Farringdon Rd., E.C.)

HUBBUCK'S P URE OXIDE O

8old by the following Wholesale DruggistsIn Boxes of **7** lbs. and **14** lbs. stamped by the Manufacturers; also in 1-lb. Boxes and 1-lb. Glass Bottles : -

Allen & Hanburys (Lim.)

Lim.)

Bell, Jno., & Co.

Bleasdale (Lim.)

Boots' Pure Drug Co.

British DrugHouses(Lim.)

Burgoyne, Burbidges &

Burgoya.
Co.
Co.
State & Crispe
Olay, Dod & Co.
Cockburn & Co.
Corbyn, Stacey & Co.
((Lim.)

Ookburn & Co. (Lim.)
Oorbyn, Stacey & Co.
Dakin Brothers. ((Lim.)
Duncan, Flockhart & Co.
Evans, Gadd & Co.
Evans Sons Lescher &
Webb (Lim.)
Ferris & Co.
Gale & Co.
Glasgow Apothecaries' Co.
Glasgow New Apothecaries' Co.
Goodall, Backhouse & Co.
Horker, Stagg & Morgan

Harker, Stagg & Morgan (Lim.) Harkness, Beaumont & Co.

Hatrick, W. & R., & Co.

Barry, E. J., New York. Carter, Carter & Kilham, Boston. Finlay & Branswig, New Orleans. Langley & Michaels, San

Francisco. York.

Hirst, Brooke & Hirst.

Hodgkinson, Prestons & King. Hodgkinsons, Clarke) & Ward.

Horner & Sons. Huskisson, H. O., & Co. Inman's Stores (of Edin-

boro'). Ismay, John, & Sons Lofthouse & Sal Saltmer

(Lim.) Oldfield, Pattinson & Co. Oldfield, Pattinson & Co. Pinkerton, Gibson & Co. Raimes, Clark & Co. Raimes & Co. Raimes & Co. Raimes & Barcland. Silversides, R. B. G. Southall Bros. & Barclay. Sumner, R, & Co. Taylor, James. Thompson, John (Lim.) Willows, Francis, Butler & Thompson (Tim.) Woolley, Jas., Sons & Co.

Woolley, Jas., Sons & Co. (Lim.)

Wright, Layman & Um-ney (Lim.) Wyleys (Lim.)

McKesson & Robbins, New

York.

Muth Brothers & Co.,
Baltimore.

Roller & Shoemaker,
Philadelphia.

Schieffelin, W. H., & Co., New York. Shoemaker, R Philadelphia. R., & Co.



HUBBUCK'S PURE OXIDE

Is made by Sublimation, and is Warrantas to contain upwards of

99 PER CENT.

Of Pure Oxide; in fact the impurities are not traceable.

THOS. HUBBUCK & S

(Established 1765)

24 LIME STREET, LONDON.

Manufacturers of-

White Lead, White Zing, Paints, Oils, Colours, Varnishes,

AUSTRALIAN OFFICE-

34 QUEEN STREET, MELBOURNE,

The Manufacturers supply their Purs Oxide Wholesale only, in quantities of not less than 2 cwt.

ORDER THROUGH YOUR WHOLESALER "RED BAND"

Magnesia

IN TWO SIZES.

Box. 24/- per gross.

Contains 10% Bismuth Carb. Carriage Paid on Direct Orders. Not liable to Duty. Cash with Order. per 47/- gross.

BOLD ATTRACTIVE SHOWCARDS AND POSTERS ARE GIVEN WITH EACH 6 DOZEN ORDER. SEE THAT YOU GET THEM!

> REPEATS COMMENCE ONE WEEK AFTER FIRST SALE IS MADE, AND BY USING SHOWCARDS AND POSTER YOU CAN SELL THE NINE DOZEN IN A WEEK.

AND BE THE FIRST IN YOUR DISTRICT. ORDER NOW!

THERE WILL BE A GREAT DEMAND FOR THIS POPULAR PACKING, AND WE ADVISE YOU TO INCREASE YOUR STOCKS. IF YOU HAVE NOT HANDLED THIS SPLENDID SELLING LINE, WRITE AT ONCE FOR TERMS. YOU WILL BE SATISFIED WITH THE MARGIN. WHOLESALERS!

Ask for Travellers' Samples; you can then book orders WITHOUT CARRYING A STOCK.

D BAND CHEMICAL CO. DALRY ROAD, EDINBURGH. AWARDS AT EXHIBITIONS—1904. 1909. 1910. GRAND PRIX, BRUSSELS.

TELEGRAMS: "TYREMICUS, STRAT, LONDON."

CODES:
ABC, 5th Edition.

PURE CHEMICAL

OUR REPUTATION.

YOUR GUARANTEE.

Preparations manufactured according to recognised standards.

For Anæsthesia, Pharmacy and Refrigeration.

CALOMEL, CORROSIVE SUBLIMATE.

Carbonate, Citrate Subnitrate

SYRUPY 1750, U.S.P. 1710.

Iron Citrate True.
Iron Citrate and Quinine.
Iron Acetate.

BARIUM, CALCIUM, IRON.

AMMONIUM, CALCIUM, IRON.

Iron Sulphate,
Sodium Carbonate.

TECHNICAL.

Pyroxylins, Collodions.
lodides and Bromides.
Cadmium and Gold Salts.
Iron Ammon. Cit. Green Scales
Sodium Sulphite.

ETHERS METHYLATED.

MERCURIALS.

BISMUTH.

PHOSPHORIC ACID.

SCALE PREPARATIONS.

HYPOPHOSPHITES.

PHOSPHATES.

EXSICCATED SALTS FOR COMPRESSION.

ACIDS.

PHOTOGRAPHY

PROCESS

For Photography, Free Acid and Oil.

RED AND WHITE PRECIPITATES.

Salicylate, Oxide, Oxychloride

CONC. 1500, DIL. P.B.

Iron Pot. Tart.
Iron Ammon. Tartrate.
Iron Pyrophosph.

POTASSIUM, SODIUM, &c. MANGANESE, POTASSIUM, SODIUM.

Sodium Sulphate, Sodium Phosphate.

ANALYTICAL.

Potass. Metabisulphite. Iron Perchloride. Ammonium Sulphocyanide. Ammonium Bichromate. Ammonium Hydrosulphuret.

COBALT SALTS, ACETATE, CARBONATE, SULPHATE, SICCATIVES, &G.

TYRER'S MANUFACTURE MAY BE HAD THROUGH THE REGULAR TRADE CHANNELS.

THOMAS TYRER, F.I.C. F.C.S. MANAGING DIRECTOR.

PRECIPITATED CHALK

(Creta Præcip.)

ALL GRADES FROM THE LIGHTEST TO THE PUREST & WHITEST DENSE.

APPLY TO

A. LEVERMORE & CO. LTD.

8-10 GREAT ST. HELENS, LONDON, E.C.

Telegrams: "Levermore London,"

ABC Code used. (5th Edition.)

Telephone: 4613 Central.

Powdered Talc, Prepared Chalk in Cones and Powder, Tailors', Billiard and School Chalks; also Crayons of all descriptions.

GELATINES

FINE LEAF GELATINE PURE CALF

"ALBION" BRAND

In 11b. Packets.

FINE CRYSTAL GELATINES.
PURE SKIN GELATINES.
POWDERED GELATINES.

Telegrams: OURY, MILLAR & CO., "OLMENTH, LONDON." 9 Mincing Lane,

Telephone: 4978 Avenue.

LONDON, E.C.

EVANS

FOR

Tinctures in Bond

EVANS SONS LESCHER & WEBB

Limite

Liverpool and London New York, U.S.A.

See also pp. 19, 36, 74, 133, 137, 143, 146, 150, 154, 173, 204, 210, 213.

The Fabra Company Ltd.



CHEMICALS

FINE PHARMACEUTICAL PHOTOGRAPHIC HEAVY.

24 Minories, London.

46 Vicar Lane, Bradford.Lloyds Bank Buildings, Manchester.54 Gordon Street, Glasgow.

Powvalla Buildings, 237 Hornby Road, Bombay.

29 Broadway, New York.

We are making a feature of manufacturing

ORGANIC CHEMICALS

previously obtained from Germany, and shall welcome your inquiries. We can frequently supply the "chemical equivalent" to a proprietary.

We append a few SPECIAL OFFERS of interest at the moment:

Adeps Lanæ, anhydrous, B.P. 28lbs. 3/6 per lb. Alcohol (S.V.R. and absolute) all strengths and in any quantity over $1\frac{1}{2}$ pints. Allantoin 14/- per oz. Anilin Oil, good, 28 lbs. 3/9 per 1b. Atophan Substitute Tablets, \(\frac{1}{2} \) gm. each, 1 lb. lots 80/-Benzidine Benzonaphthol 17/6 per oz. 100/- per lb. Betanaphthol ... 20/- ,, Caffeine ... S 60/-Canada Balsam 7 lbs. 4/6 Chloralamide 60/- ,, Cotarnine HCl. (Stypticin) ... 30/- per oz. Creta gall. pulv. (2 cwt. bags) ... 30/- each Dermatol 18/6 per lb. Digitalis Fol. Ang. ... 2/- ,, Emetine-Bismuth-Iodide 100/- per oz. Stearettes, 3 grain bots. of 12 10/- each 25 20/-1 grain ... 12 3/4 25 6/8 Emetine HCl. ... 100 gm. at 5/6 ... Booking orders in advance. Flavine. Fluorescein... ... 6/- per oz. ... 1/6 per lb. Glycerin Substitute Glucose, white lump ... 40/- per cwt. Guaiacol Carb. 180/- per lb. Ichthyol Ammon., 7 lbs. ... 4/6 ... " Sodium 9/- " 25/- per lb. Lith. Salicyl

Mag. Glycerophosph.			15/-	per 1b.
Mag. Sulph. B.P. opt.				
Mannite				
Mannitol Nitrate Tal				
boxes, 3/6			33/-	per doz.
Moss, Compressed.	Price	s on r	eceip	of card.
Nux Vomica, pulv.	•••	28 lb	s. 1/ -	per lb.
Oleum Eucalypti globi	ıl.,Wtr	s. at	4/-	**
., Limonis, B.P.	•••		6/-	**
Sinapis Volat.,	B.P.	•••	80/-	**
Paraffin Liq				
,, molle flav. B.H				
Paraform			6/-	per lb.
Peptone bacteriological			16/-	12 .
Phenacetin		•••	140/-	
Phenol-Sulphone-Phtha	aleine	•••		per gm.
Phosphorus Pentachlor	ide		7/6	per 1b.
Potass, Sulpho-Guaiac	olate		104/-	per lb.
Resorcin		•••	170/-	11
,, ^ Acetate			16/-	per oz.
Silver Proteinate, 10%	silver		29/-	per lb.
Sod, Cacodyl			€0/-	
	•••	•••	50/-	
Perborate	•••	•••	3/ - 3/6	**
Terpine Hyd	•••	•••	3/6	**
Thiosinamin			90/-	
Tuberculins, British, fu				
Urea				
Urethane	•••		. 2/-	per oz.
Vaccines, Wimpole.				
Veronal				
Xeroform	•••	•••	4/-	per oz.
Yeast Powder (Fæxin)	•••	•••	10/-	per ib.

These prices are for the quantities stated. Less quantities at slight increase. All without engagement. Goods at London.

W. MARTINDALE 10 NEW CAVENDISH STREET, LONDON, W.

Telegraphic Address: "Martindale, Chemist, London." Telephone Nos.: Gerrard 4688; Paddington 1797.





PEROXIDE

OF

HYDROGEN

Of all Strengths
For all Purposes

B. LAPORTE, LTD. LUTON

AND AT LONDON AND BRADFORD

Telegrams: "Laporte Luton."

Tel. No. : Luton 521.





Samuel G. McCotter & Co.

Cable Address: "McCotter New York."

13 GOLD ST., NEW YORK CITY

BROKERS IN

DRUGS, CHEMICALS, DYESTUFFS, AND ESSENTIAL OILS.

ASENCIES SOLICITED.

CURRENT MARKET PRICES MAILED WEEKLY TO WHOLESALE TRADE ON REQUEST.

British Pharmaceuticals

ACETANILID

AMYL ACETATE

SODA SULPHOCARBOLATE

ZINC SULPHOCARBOLATE

E. H. BUTLER & SON, Manufacturing Chemists
93 Humberstone Gate, LEICESTER.

Swiss Aniline Colours.

J. R. GEIGY, S.A., Basle - Switzerland

are makers of

ACID REDS, YELLOWS and ORANGES METHYLENE BLUES SPIRIT BLUE NIGROSINES. TANNIC ACID

Agents for Leicester District:

E. H. BUTLER & SON, LEICESTER

MAGNESIA

CARBONATE, CALCINED, FLUID.



The "Patesia" brand of carbonate and calcined Magnesia is distinguished for whiteness and purity. The reputation of the "Patesia" products has been obtained on these points and maintained for a long course of years.

THE WASHINGTON CHEMICAL CO., Ltd. WASHINGTON, COUNTY DURHAM, ENGLAND.

London Agents: Messrs. CLIFFORD CHRISTOPHERSON & CO., 6 Lloyd's Avenue, London, E.C.



DRUGS AND CHEMICALS

Inquiries from Over-Seas are solicited for the following lines:

Acetanilid Acetylsalicylic Acid

Ammon. Sulfo-ichthyol Tannic Acid Caffein & its Salts

Creosote Iodides Menthol Mercury Salts Pepsines Silver Salts Tannin Albuminate

Acetic Acid, Glacial Agar-Agar

Arsenic Bicarbonate of Potash Zinc Oxide

Camphor

Chlorate of Potash Copper Sulphate . **Epsom Salt**

Gelatine Insect Powd. & Flo. Precipitated Chalk

Talcum

and other Drugs, Chemicals and Vegitable Oils.

MOTOSABURO TANABE.

Importer, Exporter & Manufacturer, Honcho, Nihonbashi-ku, TOKYO, JAPAN.

I offer for prompt shipment **PARANITRANILINE BETANAPHTHOL METAPHENYLENEDIAMINE** BENZIDINE SULPHATE HEMATINE CRYSTALS SOLID LOGWOOD EXTRACT

JOHN C. SPARKS, DYES, CHEMICALS, AND DRUGS, 30 CHURCH STREET, NEW YORK, CABLE ADDRESS: "SPARCHEM."

Phone: Battersea 1612.

PICERNO.

92 FALCON ROAD, BATTERSEA, S.W.

INQUIRIES SOLICITED FOR

and Chemicals Drugs

(TECHNICAL & PHARMACEUTICAL).

Acid Citric

Hexamine

Gallic Lactic 50 % Edible Tannie Leviss Barium Binoxide Cream of Tartar 991 % Creosote B.P.

كالمناب المناب المناب

Lithium Carbonate Lycopodium Magnesium Metal Magnesium Sulphate Mannit Naphthaline Balls Phenazone Phenacetin

Quinine Salts Santonine Salol Salol Santonine
Soda Benzoate
"Hyposulphite
Tartar Emetic 43/44%
Terpine Hydrate
Urea, pure eryst.

And all products used in the Pharmaceutical Industry for Prompt or early Delivery.

Cable Address:

"CELAITCH, NEW YORK."

AS. L. HUISKI

5 PLATT STREET, NEW YORK CITY,

Broker and Merchant. Commission

DRUGS, CHEMICALS, ETC.

Buying and Selling Agent for leading Houses in all parts of the World. Weekly Market Reports Mailed on request of Wholesale Buyers only.

JOHN

7 WEST GEORGE STREET, GLASGOW, SCOTLAND.

POTASH, SODA AND AMMONIA

CHROMATE OF SODA.

Also HIGH STRENGTH SULPHATE OF AMMONIA AND TAR.

HONEY! HONEY!

"JOYBELLS" HONEY.

The choicest and most delicious honey procurable. Screw-top Glass Jars, 10s. and 6s. per doz.

"JOYBELLS" HONEY, Red Earthenware Pots, 9s. 3d. per doz.; or in Bulk, 9d. per lb. Tins charged and returnable.

The Institute of Hygiene state: "We are satisfied that 'Joybells' Honey is a genuine product, possesses the distinctive flavour imparted to bee honey, and is a most pleasant and wholesome article for general table use."

"SUMMERLAND" HONEY.

Equals that usually sold as Finest Clover Honey. Screw-top Glass Jars, 9s. and 5s. 6d. per doz. In Bulk, 72d. per lb.

"SWEET FLOWER BELL" HONEY.

Fine Quality. Clean Flavour. Tie-Over Red Earthenware Pots. 8s. and 5s. 6d. per doz. In Bulk, 7d. per lb.

BEESWAX. Choice quality, 2s. per lb.; 1-oz. Moulds, 1s. 9d. per doz. Carriage paid anywhere in England on orders of £2 value

STANDARD HEALTH FOOD COMPANY

(With which is incorporated The Berkshire Honey Co.)
Honey Specialists, READING, BERKS.

FINEST QUALITY

Inquiries and Orders Solicited.

PRIDEAUX'S LTD., DEPT. C, MOTCOMBE, DORSET.

LONDON OFFICE:

10 HOP EXCHANGE, Southwark Street, S.E.

ALL CHEMISTS SHOULD STOCK

THE GOLD MEDAL FRUIT DRINK.

Quick Seller. Big Profits. Quarter of a Century's Reputation.

"ABDINE" is the most popular Health Drink. Superior to all Mineral

Waters. Sold in Packets, 2 for 2id.; Boxes of 13 Packets 1/3.
Order through your Wholesale Drug House.

D. M'GLASHAN, M.P.S., Abdine Works, Westfield Road, EDINBURGH.
Wholesale Prices on Application

NEWTON - MASON'S HOREHOUND AND LINSEED

ESTABLISHED 1868

THE GREAT CURE FOR BRONCHITIS, COUGHS, ETC.

Best Wholesale & Export Terms on application-

A. E. ROBERTS,

Analytical Chemist, WEST BROMWICH, ENGLAND.

CURES ALL SKIN TROUBLES

Costs you 10/6 per dozen. 1/3 size. With 3 dozen a bonus of 6 extra are sent free for Counter Display; with 6 dozen 18 free—net cost about fil.—and retails at P.A.T.A. minimum of 1/3-about 80% profit. Smart Counter Display Boxes, ample supply of Free Samples, Window Bills, and we Advertise you as Local Agent in your Local Weekly with topical advts.

Write for Particulars of Advertising Scheme to-day.

MAURICE SMITH & CO.,

Manufacturing Chemists - KIDDERMINSTER.

WHOLESALE TRADE ONLY.

Established 1900.

DR. B. W. GATHERGOOD'S EXOR.

Terrington St. John, WISBECH -

For GREEN EXTRACTS and DRIED HERBS of BELLADONNA, HENBANE, &c.

ROBERTS'

GROUPLINE

COUCH SYRUP

(Registered)

For Coughs, Colds, Croup, Whooping Cough, Enlarged Tonsils, Ulcerated Throat, Bronchitis, Inflammation of the Lungs, and all Chest and Throat Diseases. It works wonders in Measles and Scarlet Fever, preventing all Chest complications.

ROBERTS' CROUPLINE has saved the lives of hundreds of children, who, but for this unfailing remedy, would have been carried off with terrible suddenness by Croup long before medical aid could be summoned,



CHILDREN LIKE IT.

Copy of Testimonial from NURSE HUNT, 100 Windsor Street, LIVERPOOL. Mr. T. ROBERTS.

Mr. T. Roberts,
Dear Sir—I have great pleasure in writing to say that
I have used your valuable preparation for a long time,
and can testify to the benefits derived from "Croupline."
I have used it in many cases always with good and
practical results, even with babies two or three days old,
and in some cases with the mothers.

I can and will always recommend it to any of my
patients, as I have seen such good results from it. You
are quite at liberty to make any use of this testimony
for the benefit of others.

I am, yours faithfully, NURSE HUNT, Certified Midwife.

Price 1s. 3d. and 3s.

EMINENT ANALYST'S REPORT.

(1) Croupline is free from any scheduled or unscheduled poisonous material whatever.
(2) The ingredients from which Croupline is prepared are, in my opinion, of acknowledged therapeutic value, and are of the very highest possible degree of purity.
(3) The preparation is an elegant one and one which will not decompose and your plains that it may be safely

will not decompose, and your claims that it may be safely administered to young children are, in my opinion, perfectly justified.

> Yours faithfully, --B.Sc., F.C.S.Name of Analyst sent on request.



(ROBERTS' CATARRH CURE)

is a remarkable specific for Catarrh, Colds, Hay Fever, Nasal Catarrh, Bronchial Catarrh, In-fluenza, and all troubles involving Inflammation of the Mucous Membrane and Tissues lining the Nasal Cavity, on account of its contact with the tissue, and

ITS POWER OF EVOLVING A **CURATIVE VAPOUR**

which penetrates into the air passages, permeating the germ-laden tissue and allaying the inflammation.

"CREVALIN" is a remedy which has a very wide range as a Healing Ointment of many virtues.

"CREVALIN," applied externally, gives Prompt Relief in Inflammation.

"CREVALIN," THE EVER-READY! In Collapsible Tubes. Price 1s. 3d.

MAYOR'S PARLOUR, BOLTON,

16th November, 1915.

Mr. THOMAS ROBERTS, Croupline Depot, Bolton.

Dear Sir,—I have been acquainted with the merits of your CROUPLINE and CATARRH CURE for some considerable time.

I have derived great benefit when I have had occasion to use them.

Yours truly,

JAMES SEDDON, Mayor of Bolton.

ROBERTS' CROUPLINE DEPOT, BOLTON.



MALT & COD LIVER OIL

Prepared only from the finest East-Coast Barley, combined with the best Norwegian Non-Freezing Cod Liver Oil.

Packed in Screw-Capped Jars, Bottles and Tins, holding 1 lb. and 2 lbs. Neatly Labelled and Wrapped. Customer's Name printed on Labels for Orders of 1 Gross and upwards.

PELEPHONES:
Pethill—Pellokshaws 14.
London—Avenue 5661
(3 lines).

PERRY & HOPE, Ltd.

Department 7, NITSHILL, near GLASGOW. London Office: 1 LEADENHALL STREET, E.C.

Are You Throwing Money Away?

OF course you wouldn't do such a thing! Yet every time you refuse an inquiry for "CARMEX" you throw away at least 4d.—and many other fourpences on the repeat orders that would have come to you. Isn't it worth while getting in a stock of

P.A.T.A. Retail - 1/3



P.A.T.A. Per doz. 11/-

The New Remedy for Infants' Ailments. Advertised in the Press and leading journals.

From Sangers', Barclay's, Edwards', etc. Raimes', Glasgow Apothecaries' Co., etc., or direct.



WILLIAM BROWNING & Co., Manufacturing Chemists,

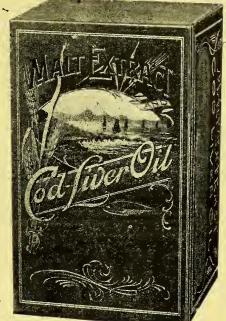
Albert Works, Park Street, London, N.W.

Telephone - Hampstead 4046.

Telegrams - "Semprolin, Norwest, London."

The best package of Extract of or Extract of Malt Malt

PLAIN



with

Cod Liver Oil

The Extract is prepared from the finest Malted Barley, whilst, by a special process of flavouring, the taste of the Oil in the combination product is effectively masked.

Issued in four sizes— $\frac{1}{2}$ lb., 1 lb., 2 lb., and 4 lb.

FOR PRICES SEE OUR MONTHLY LISTS
— SPECIAL PRICES FOR QUANTITY. —

EVANS SONS LESCHER & WEBB

LIMITED

London and Liverpool

WELCH & HORNER,

Drug Merchants and Essential Oil Importers,

9-10 Jewry Street, and Carlisle Avenue, LONDON, E.C.

Telephone-Avenue 3070.

Telegrams-" Orrisroot, Fen, London."

ALOES - Cape Barb and Socotrine

BALSAM-Tolu & Copaiba

BARKS—Cascara Sagrada Slippery Elm Quillai

BEANS—Tonquin Vanilla

CASTILLE SOAP — Whole and Powder

COLOCYNTH — Apple and Powder

CUBEBS

CUTTLEFISH — Whole and

DRAGON'S BLOOD-Whole and Powder

ERGOT OF RYE

FLOWERS—Chamomile

Insect Lavender

Roses
GUMS—Acacia
Benjamin

Elemi Gamboge Guaiacum Mastic

Myrrh Sandrac Styrax Tragacanth LEAVES AND HERBS-

Buchu Chiretta Digitalis

Hyoscyamus Senna Leaves ,, Pods

ROOTS-Aconite

Alkanet Calumba Gentian Ipecac Jalap Licorice

Marshmallow Orris Rhubarb ROOTS-continued.

Sarsæ Senega

SQUILLS

TURMERIC

OILS-Heavy and Essential

Camphor
Cassia
Castor (French)
Cottonseed
Eucalyptus B.P.
Lavender
Lemon
Olive (all grades)

Olive (all grades) Orange Nut and Mineral Oils

ALL POWDERED DRUGS STOCKED.

KINDLY WRITE FOR PRICE LIST.



GRAND PRIZE: FRANCO-BRITISH EXHIBITION, LONDON, 1908.

GRAND PRIZE: JAPAN-BRITISH EXHIBITION, LONDON, 1910.

WHIFFEN & SONS, LTD.

Comprising the Old-Established Businesses

Established 1859 - THOMAS WHIFFEN, Battersea Established 1654 GEORGE ATKINSON & COMPANY, St. Andrew's Hill, E.C. Incorporated 1890 J. A. WINK & CO., Battersea (late of Devonshire Square)

WE continue to associate the names of George Atkinson & Co. and J. A. Wink & Co. with those respective branches.

SPECIALTIES EMETINE SALTS AND PREPARATIONS

ATKINSON'S	WHIFFEN'S	WINK'S
IODINE PREPARATIONS BROMINE PREPARATIONS REFINED CAMPHOR VERMILION MERCURIALS ESSENTIAL OILS PRUNELLA ANTIMONY ALUMS, EXPRESSED OILS	ATROPINE CAFFEINE & SALTS SALICINE STRYCHNINE (HULLE'S) STRYCHNINE SALTS THEOBROMINE & SALTS NICOTINE & SALTS QUININE & SALTS QUINETUM CINCHONA BARKS CINCHONA ALKALOIDS	MORPHINE ALKALOID & SALTS CODEINE ALKALOID & SALTS ALL OPIUM DERIVATIVES OPIUM EXTRACT B.P. OPIUM GUM & POWDER

Our products may be obtained through any of the Wholesale Drug and Chemical Houses in the United Kingdom and the Colonies; or direct correspondence is invited from those interested in the Wholesale Trade.

EXCEPTIONAL QUOTATIONS AND TERMS, where possible, will be conceded to Manufacturers and Exporters.

TELEGRAMS: "WHIFFEN LONDON."

Codes for Telegraphing: A B C, 4th and 5th Editions, and Lieber's.

TELEPHONES: 254 & 255 Battersea. G. Atkinson & Co.

Branch 970 Bank. J. A. Wink & Co.

Branch 254 & 255 Battersea.

SALICYLIC ACID, B.P.

HOLT, THOMPSON & CO., LTD.

Telephone: Royal 2060,

6 College Lane, LIVERPOOL.

Telegrams: "Saiol Liverpool."

"JOHN BULL" MALT EXTRACTS

AND

MALT EXTRACT AND COD LIVER OIL



THE HALL MARK OF ABSOLUTE PURITY HIGH DIASTASIC STRENGTH, AND REGULARITY.

Specially Prepared for Export to Tropical Climates. Renowned for Keeping Qualities and Non-separation.



MILLS AND MALT EXTRACT REFINERY

An Australian Customer writes us on July 16, 1916:—

"The samples arrived in good condition; and I have some you sent me quite 4 years ago that are keeping splendidly."

Paine & Co., Ltd., St. Neots, Hunts.

Manufacturers for Wholesale and Export only.

AUSTRALIAN AGENTS
FOR VICTORIA AND
TASMANIA:
Rocke, Tompett & SeMelbourne,

Established 1750

AUSTRALIAN AGENTS
FOR WESTERN
AUSTRALIA;
Neale, Constable & Se,
Parth.

WYLEYS LIMITED

Wholesale Druggists, Manufacturing Chemists.

PHARMACEUTICAL PREPARATIONS PHARMACEUTICAL SPECIALITIES PEARL & GELATINE COATED PILLS GRANULAR EFFERVESCENT PREPARATIONS COMPRESSED TROPELS (SUGAR COATED AND CHOCOLATE COATED) "TROPELS." "BI-TROPELS" & PASTILLES EFFERVESCENT TROPELS STANDARDIZED TINCTURES (ALSO IN BOND) CONCENTRATED TINCTURES GLYCERINE TINCTURES CONCENTRATED INFUSIONS CONCENTRATED DECOCTIONS DURAPLASTIC HORSE BALLS VETERINARY SPECIALITIES GABRIEL & TROKE'S HORSE BALLS PHOTOGRAPHIC CHEMICALS (PACKED FOR RETAIL)

COVENTRY

Price Lists on Application.

JANUARY 27, 1917



WHOLESALE & SHIPPING ONLY

CAPSULES & PERLES.

GUARANTEED OF STANDARD ACCURACY.

FINEST HAND-MADE PERLES

Keep clear, bright, and sound in all parts of the World. Special terms to large buyers of Flexible, Semi-Flexible, or Hard Capsules IN BULK, or Boxed & Bottled with Buyer's Name, &c. State requirements for Special Quotations.

COLONIAL BUYERS

should indent for "ROBBINS' CAPSULES," and save all further trouble with this class of goods. Inquiries for Quotations Solicited.

Labelling to meet requirements of Commerce Acts.

SANTAL-PERLES (Original), NESBIT'S SPECIFIC PERLES "APIOLOIDS," "CAPSULETTES DE HERCULES." "CREASOIDS," "COD-LIVORINE," &c. (Trade Marks) Registered)

These and other attractive, quick-selling, nicely packed articles may be ordered through any Wholesale Druggist or Shipper; Buyer's name on labels.

John G. Robbins,

MEDICINAL CAPSULE AND PERLE MANUFACTURER (WHOLESALE & EXPORT),

ESTD. 1889.

130 ROMFORD ROAD, STRATFORD, LONDON, E.

HAMMOND JEFFERY & CO., Ltd.

8 Harp Lane, London, E.C.

Tel.: Central 9521.

Tel.: "Diuretic, Bilgate, London."

BROMURAL TABLETS

DIURETIN STYPTOL SANTYL SANTYL CAPSULES

STYPTOL TABLETS

Price List on Application.

MADE IN ENGLAND

Petroleum Jelly

Finest Red, Yellow & White, Guaranteed B.P.

Gums Waxes Dextrine

and

Crude Drugs

W. M. KIDSTON & CO.
43/45 GREAT TOWER STREET
LONDON, E.C.

Telegrams: "Kidstonism, Bilgate, London."

Tel. No.: 8057 Avenue

SCIENTIFIC ORGANOTHERAPY **PRODUCTS**

"OPOCAPS" (Regd.) and SPECIAL REGISTERED PRODUCTS

Lymphoid Compound, Lymph Serum, Ovamammoid Compound, Adrenin (B.O.C.), Hæmatothyroidine, Retropituitrol, Eukinase, Pancreatokinase, and Extracts Thyroid, Thymus Suprarenal, Splenic, Red Bone Marrow, Prostatic, Placenta, Pituitary, Parathyroid, Lymphatic, Corpora Lutea, Biliary, Renal, Hepatic, Gastric Mucosa, and all other Organotherapeutical Preparations employed in Modern Medicine.

THE BRITISH ORGANOTHERAPY CO., Ltd., Carlton House, Lower Regent St., London, S.W.

ASTELL J. WILLSON, 25 Monument Street, London, E.C.

Cable Address: "Acriton London."

Chemists' Buying Agent and General Export Merchant.

All Indents sent to me will receive my personal and prompt attention,

Sole South African Agent for—John Gosnell & Co., Ltd., London. The Standard Tablet and Pill Co., Ltd., Hove, The "Do-Well" Feeder, Valves and Teats.

Proprietor of "ESTELLE" (Reg.) Brand of Toilet Articles and Feeding Bottles.

Warrington Chemical & Drug Co.

PADDINGTON WORKS, WARRINGTON

Manufacturers of

Salicylic Acid & Salicylates OF FINEST B.P. QUALITY.

IMMEDIATE DELIVERY.

Chlorate of Potash Chlorate of Soda Chlorate of Baryum Perchlorate of Potash Perchlorate of Ammonia

Selling Agents: CHAS. MANGOLD & CO., LONDON

9 MINCING LANE.

SOCIÉTÉ D'ELECTRO-CHIMIE, PARIS,

2 RUE BLANCHE.

& COMPAN TOMODA

WHOLESALE DRUGGISTS, EXPORTERS, IMPORTERS AND MANUFACTURERS.

GFFICES: Tokye, Yekehama, Osaka, Dairen (Dalny,) Singapore.

FACTORY; Hiranuma, Yokeham

LABORATORY: Marunouchi, Tokyo.

THE SUPPLIERS OF THE FOLLOWING JAPANESE PRODUCTS:

Ammonia Sulpho-Ichthyol, Agar-Agar, Aniline Oil, Argent Proteinic, Arsenobenzol, Caffein Pure, Camphor, Chalk Precipitated, Chamomile Flowers, God Liver Oil, Copper Sulphate, Epsem Salts, Glycerine, Insect Flowers and Powder, Iodide Potaca, Ledide Soda, Iodino Pure, Iodeform, Kuromoji Oil, Magnesia Carbonate, Menthol, Menthol Cones, Naphthalin, Neoarsenobanes, Peppermint Oil, Salicylic Acid, Salicylic Soda, Sulphate Iron, Staraniseed, Talcum, Yellow Prussiato Potass., Zinc Onide, Chinger, etc., otc. Also Glass Wares and Bottles.

Correspondence respectfully invited to

TOMODA & CO., 4 - CHOME, HONCHO, NIHONBASHIKU,

ESTABLISHED RUABON TELEPHONE

MANUFACTURERS OF

GLAUBER SALTS, B.P., & COMMERCIAL. CARBOLIC ACID. PICRIC.

AURINE & ACROSYL (Lysol Substitute) ORTHO, PARA & META CRESOLS. CREOSOTE SOLUBLE, &c.

PURE CARBOLIC CRYSTALS 40 degs.

CONTRACTORS to the BRITISH and other Governments.

INDEX TO ADVERTISERS.

Pages 5 & 6.

BRILLIANT PLATE.

UM OR WHITE ROUGE"

GIVES A UNIQUE POLISH TO ALL SILVER AND ELECTROPLATED GOODS. in 6d. and 1/- Boxes, and Tins, 2/-

BRADLEY AND BOURDAS. 6 PONT STREET, S.W.



B. BROWN & BRO. Importers and Exporters DRUGS, CHEMICALS & VEGETABLE OILS 280 BROADWAY, NEW YORK, U.S.A.

THE WAND MANUFACTURING CO.

(PROPRIETORS: WANDS Ltd., Reg. Office 12 Haymarket.)

All inquiries to be addressed to

21 Wellington Street, LEICESTER.

Tel. Address: "Wand." Nat. Tel. 1145.

Specialists in

PILLS, TABLETS, CAPSULES.

PACKED OR IN BULK.

Private FORMULÆ faithfully COMPOUNDED.

ALL GOODS AT LOWEST POSSIBLE PRICES.

BEST DRUGS.

Special Quotes to Large Buyers.

Largest Sales! Quickest Turnover!

WORTH A GUINEA A BOX.

BEECHAM'S PILLS

For ALL Bilious and Nervous Disorders, Sick Headache, Constipation, Wind and Pains in Stomach, Impaired Digestion, Disordered Liver, and Female Ailments.

The Sale now EXCEEDS SIX MILLION BOXES per Annum.

Druggists will find BEECHAM'S PILLS the MOST SALEABLE Patent Medicine in the Market.

IN BOXES, PRICE 1/3, 3/- AND 5/-

BEECHAM'S COUGH PILLS

STAND UNRIVALLED FOR

Coughs, Asthma, Bronchial Affections, Hoarseness, &c. &c.

IN BOXES, 1s. 3d. AND 3s. EACH, WITH FULL DIRECTIONS.

Home Retailers of BEECHAM'S PILLS desirous of exhibiting Showcards or Dummies, and wishful to have a good supply of Handbills various sizes and colours, with name and address at foot, Oracles, &c., should apply to the Proprietor—

THOMAS BEECHAM, ST. HELENS, LANCASHIRE.

N.B.—Prices quoted herewith are for preparations according to the New Pharmacopoela, 1914,

PRICES ISSUED WEEKL

Original Packages can generally be supplied at the Current Prices quoted in the Trade Report of this

N.B.—We would draw attention to the fact that all prices quoted herein are subject to alteration without notice, and that where stocks are limited preference is always given to our regular customers.

Fol. Sennæ Tinnev., 1 cwt. @ 6d. lb.; 7 lbs. @ 7d. lb.; English Ground, 56 lbs. @ 10d. lb.; 7 lbs. @ 1/-lb.
Formaldehyde, 40%, 4 cwt. barrels @ 87/6 cwt.; 7 lbs. @ 111d. lb.
Fuller's Earth, fine powder or lump, 5 cwt. @ 8/3 cwt.; 1 cwt. @ 9/6.

Callæ Cærul. Pulv., 7 lbs. @ 2/– lb. Gamboge, English Ground, 7 lbs. @ 5/6 lb.; 1 lb. @ lb.

1 lb. @ lb.

Ginger, English Ground, 1 cwt. @ 67/- cwt.;

7 lbs. @ 8\fl. lb.

Gingerine, Extra, 5 lbs. @ 13/- lb.; 1 lb. @ 13/6.

Glycerin. Opt. D.D., 1.260 P.B., 56 lbs. @

cwt.; 12 lbs. @ 1 4\fl. lb.

Glycerin, Acid. Boric, P.B., 6 lbs. @ 2/1 lb.

Acid. Carbolic, P.B., 6 lbs. @ 1/10 lb.

Belladon, B.P.C. 6 lbs. @ 6/6 lb.;

Belladon. B.P.C., 6 lbs. @ 6/6 lb.;

2/4 lb.

Guaiacol Carb., 1 lb. @ 140/- lb.

Guaiacol, pure, 1 lb. @ 130/- lb.

Gum Acaciasorts, 3 cwt. @ 68/- cwt.; 1 cwt. @

72/6 cwt.; 7 lbs. @ '9d. lb.; English

Ground Powder, No. 1, 1 cwt. @ 140/- cwt.;

7 lbs. @ 1/6 lb.; No. 2, 1 cwt. @ cwt.;

7 lbs. @ 1/2 lb.

Gum Berger Sumatra 84 lbs. @ 1/8 lb.; 7 lbs.

7 Aus. @ 1/2 D.

Gum Benzoin, Sumatra, 84 lbs. @ 1/8 lb.; 7 lbs.
@ 1/10 lb.

Gum Catechu Nig., English Ground, 1 cwt. @ 105/- cwt.; 14 lbs. @ 1/- lb.

Gum Guaici, 1 cwt. @ 1/3 lb.; 28 lbs. @ 1/5 lb.

Gum Juniper, 14 lbs. @ 1/- lb. Gum Thus Elect., 2½ cwt. @ 48/- cwt.; 28 lbs.

@ 52/ cwt.
Gum Tragac. Elect., English Ground, 7 lbs.
@ 10/olb.; 1 lb. @ 11/- lb.

Heading (Frothing Ess.), 5 lbs. @ 1/4 lb. Heliotropine, 1 lb. @ 26/- lb. Hellebore, White, Powder (Foreign Ground), 1 cwt. @ 52/6 cwt. Hexamethylenetetramine, 7 lbs. @ 3/8 lb.;

Hexamethylenetetramine, 7 lbs. @ 3/8 lb.; 1 lb. @ 4/- lb.

Honey, Pale Set, Jamaica, 28 lbs. @ 70/- cwt.; Californian, 7 lbs. @ 8½d, lb.

Hydrargyrum, P.B., 10 lbs. @ 5/11 lb.; 1 lb. @ 6/2 lb.; Ammon., 28 lbs. @ 7/1 lb.; c. Creta. 28 lbs. @ 2/6½ lb.; Iodid Rub. 28 lbs. @ 16/6 lb.; Oxid Rub., 28 lbs. @ 7/6 lb.; Perchlor., Lump, 28 lbs. @ 7/9 lb.; Subchlor. 28 lbs. @ 7/6 lb.; Sulph. c Sulph., 28 lbs. @ 7/- lb.; 7-lb. quantities id. lb. extra. 3-lb. quantities, 2d. lb. extra, 1-lb. quantities, 3d. lb. extra. 3d. lb. extra.

Hydrokinone, 1 lb. @ 16/6 lb.

chthyol Ammon. chemical equivalent : Ammon-

Cathyol Ammon. chemical equivalent: Ammon-Ichthosulphonas, B.P. Codex, 7 lbs. @ 7/-lbs.; lb.; 2/6 lb.

Inf. Aurant. Conc., 1 to 7, 6 lbs. @ 1/9 lb.

Murant. Comp. Conc., 1 to 7, 6 lbs. @ 1/9 lb.

Buchu Conc., 1 to 7, 6 lbs. @ 2/9 lb.

Calumba Conc., 1 to 7, 6 lbs. @ 1/2 lb.

Caryoph. Conc., 1 to 7, 6 lbs. @ 1/1 lb.

Cascarilla Conc., 1 to 7, 6 lbs. @ 1/1 lb.

Cinchona Acid, 1 to 7, 6 lbs. @ 1/1 lb.

Gentiana Co., 1 to 7, 6 lbs. @ 1/1 lb.

Rossa Acid. Conc., 1 to 7, 6 lbs. @ 1/1 lb.

Rossa Acid. Conc., 1 to 7, 6 lbs. @ 2/11 lb,

Senegæ Conc., 1 to 7, 6 lbs. @ 2/8 lb.

Valerian Conc., 1 to 7, 6 lbs. @ 1/10 lb.

Insect Powder, Opt., English Grd., closed flowers, 7 lbs. @ 3/- lb.; English Ground, ½ closed flowers, 4d. lb. less; Foreign Ground, 28 lbs. @ 1/10½ lb.
Iodoform Pulv. B.P., 7 lbs. @ 20/6 lb.; 1 lb. @

Iodum, resub. B.P., 7 lbs. @ 18/9 lb.; 1 lb. @ 19/3 lb.

Isinglass, Brazil, fine cut, 7 lbs. @ 3/9 lb.; 1 lb. @ 4/- lb.; Russian finest, 7 lbs. @ 10/6 lb.; 1 lb. @ 11/- lb.; Ribbon or Sheet, 7 lbs. @ 2/9 lb.; 1 lb. @ 3/- lb.

Mamala, 7 lbs. @ 1/8 lb.; sifted, 2/- per lb.

apis Pumicis, fine powder, 2 cwt. @ 12/6 cwt.; 7 lbs. @ 2d. lb.; lump, 2 cwt. @ 18/- cwt.; 7 lbs. @ 3d. lb.

7 lbs. @ 3d. lb.
orice Juice, Sticks, 1 cwt. @ 190/- cwt.;
28 lbs. @ 1/10 lb.; 7 lbs. @ 1/11 lb.
a. Aconiti Meth., 5 lbs. @ 2/2 lb.; 1 lb. @
2/5 lb.

Bellad. Meth., 5 lbs. @ 8/8 lb.; 1 lb. @

,, Bellad. mess., 9/- lb., 9/- lb., 9 lbs. @ 1/2 lb.; 9 lbs. @ ,,, Camph. P.B., 40 lbs. @ 1/2 lb.; 9 lbs. @ "1/3 lb.

//3 ib.
,, Sapo Meth., 9 ibs. @ 1/3 ib.
,, Tereb. Acet., B.P., 5 ibs. @ 1/3 ib.
Linseed c. Oil, Crushed, 3 cwt. @ 3/- cwt.;
l cwt. @ 40/- cwt.
*Liq. Ammonii Acefatis Conc. 1-7, 6 ibs. @ 1/2 ib.; 1 ib. @ 1/6 ib.

Our New Revised PRICE LIST is Now Ready.

*Liq. Iodi Fort, B.P., 5 lbs. @ 7/4 lb.

", Morphinæ Acet. or Hydrochlor., P.B.,
6 lbs. @ 4/3 lb,
", Opii Sed., 5 lbs. @ 6/4 lb.
", Plumbi Subacet., P.B., 7 lbs. @ 7d. lb.
", Prunt Vrg. p.s. 1-7, 5 lbs. @ 2/10 lb.
", Rheæados pro Syr., 1 to 7, 5 lbs. @ 2/9 lb.
", Rhel, p.s., 1-7, 6 lbs. @ 2/s lb.
", Sennæ Dulc. 6 lbs. @ 1/9 lb.
", Sennæ pro Syr. 1-7, 6 lbs. @ 3/5 lb.
", Strychninæ Hyd. P.B., 6 lbs. @ 2/- lb.
", Tolut. pro Syr. 1-7, 6 lbs. @ 1/10 lb.
", Trinitrni, B.P., 1 lb. @ 7/3 lb.
Lithia Carb. P.B., 28 lbs. @ 6/- lb.; 7 lbs. @ 6/3 lb.; 1 lb. @ 6/6 lb.
", Citras, B.P., 28 lbs. @ 6/4 lb.; 7 lbs. @ 6/7 lb.; pulv., 3d. lb. extra.
Lycopodium, 7 lbs. @ 7/9 lb.

Mag. Calc. Levis, 1 lb. @ 2/- lb. Mag. Calc. Pond., 7 lbs. @ 2/9 lb.; 1 lb. @ 3/- lb. Mag. Carb. Pond., 7 lbs. @ 11d. lb. Mag. Carb. Pond., 7 lbs. @ 11d. lb. Mag. Carb. Levis., 1 cwt. @ 75/-; 7 lbs. @ 9d. lb.

ID.

Mag. Cit. Gran., 28 lbs. @ 1/5 lb.; 6 lbs. @ 1/6 lb.

Mag. Sulph., fine druggists', B.P., 1 cwt. @ 19/6;

28 lbs. @ 2⅓d. lb.

Manna, Flake, 14 lbs. @ 5/10 lb.; 7 lbs. @
6/- lb.; 1 lb. @ 6/6 lb.

Menthol, dry white cryst., 60 lbs. @ 14/- lb.; 5 lbs. @ 14/8 lb.

*Mist. Sennæ Comp., B.P., 20 lbs. @ 8d. lb.; 6 lbs. @ 9d. lb.

Morphinæ Acet. Hydrochlos. of Sulph., Pulv.

B.P., 25 oz. @ 14/6 oz.; 16 oz. @ 14/9 oz.; 8 oz. @ 15/- oz.; Pur.

Præcip. Bimeconate of Tart., 1 oz. @ 19/- os.

Morphinæ Diacetyl., 4 oz. @ 21/- oz.; 1 os. @ 21/6 oz.; Hydrochlor., 6d. per oz. less.

Myrrh, Gum, English Ground, 28 lbs. @ 1/8 lb.; 7 lbs. @ 1/10 lb.

Naphthalene, Candles, 7 lbs. @ 7½d. lb. Nux Areca, 1 cwt. @ 55/- cwt.; 7 lbs. @ 7d. lb.; powder, English ground, @ 80/-cwt.; 7 lbs. @ 9½d. lb.

Ol. Amygdal. Ang., B.P., 9 lbs. @ 2/10\frac{1}{2} lb. Ol. Anethi Ang. B.P., 1 lb. @ 30/1 lb. Ol. Anethi Ang. B.P., 1 lb. @ 30/1 lb. Ol. Anisi, E.I., 66 lbs. @ 3/8 lb.; 16\frac{1}{2} lbs. @ 4/- lb.; 4\frac{1}{2} lbs. @ 4/5 lb.; 1 lb. @ 4/8 lb. Ol. Aurant., 12 lbs. @ 10/6 lb.; 1 lb. @ 11/- lb.; not guaranteed absolutely pure. Oil of Bays, genuine W.I., 1 lb. @ 14/6 lb. Ol. Cajuput., B.P., 21\frac{1}{2} oz. bots. @ 4/9 lb. Ol. Cajuput., B.P., 21\frac{1}{2} oz. bots. @ 4/9 lb. Ol. Camphor. Essent., White, 40 lbs. @ 3\frac{1}{2} lb.; Brown, 40 lbs. @ 120/- cwt.
Ol. Caryoph. Ang., B.P., 9 lbs. @ 6/4 lb.; 4\frac{1}{2} lb.
Ol. Cassias, 16 lbs. @ 4/6 lb.; 6 lbs. @ 4/9 lb.
Ol. Cinnam., 1 lb. @ 32/- lb.; 1 oz. @ 2/3 os.
Ol. Citronella, 9 lbs. @ 2/3 lb.
Ol. Coco Nucis, finest White, 80 lbs. @ 71/-cwt.; 40 lbs. @ 73/6 cwt.
Ol. Eucalypt., P.B., 1 cwt. @ 2/5 lb.; 28 lbs. @ 2/6 lb.; 9 lbs. @ 2/7 lb.
Ol. Geranii Gall. Opt., 1 lb. @ 28/- lb.; 8 1-os. bots. @ 2/3 oz.; 1 oz. @ 2/6 oz.; Turc.; 1 lb. @ 15/- lb.; 4 ozs. @ 10/6 lb.
Ol. Gynocardia, 5 lbs. @ 4/- lb.; 1 lb. @ 4/3 lb. Ol. Juniperi Ligne Exot., 9 lbs. @ 7/6 lb.
Ol. Lavand. ab Flor., 5 lbs. @ 17/- lb.; 1 lb. @ 18/- lb.
Ol. Menth. Pip. English, 5 lbs. @ 52/- lb.; 1 lb.

18/- lb.

18/- lb.

Ol. Menth. Pip. English, 5 lbs. @ 52/- lb.; 1 lb. @ 52/6 lb.; Hotchkiss original bots., 21 oz. each @ 15/9 lb.; 6 bots. @ 15/6 lb.; 18 bots. @ 15/- lb.; American, 20 lbs. @ 11/- lb.; 4½ lbs. @ 11/6 lb.; 1 lb. @ 12/- lb.; Japanese, 60 lbs. @ 4/6 lb.; 5 lbs. @ 5/- lb. Ol. Morrhuæ, 1915, finest non-freezing, 2-gall. tins @ 20/- per gall.

Ol. Myrbane, 9 lbs. @ 3/- lb.
Ol. Myrbane, 9 lbs. @ 3/- lb.
Ol. Nucis Pallid., 2 gall. tins @ 7/6 gall.
Ol. Oliva, P.B., good yellow, guaranteed pure.

Ol. Olivæ, P.B., good yellow, guaranteed pure, 45 gall. barrels @ 6/2 gall.; 2 gall. tins @

7/6 gall.
Ol. Origanl Rub., Coml., 28 lbs. @ 2/- lb.; 9 lbs.

(a) 2'3 lb.

Ol. Peach Kernel (so-called), 1 cwt. (a) 1/2½ lb.; 5 lbs. (a) 1/4 lb.; 9 lbs. (a) 1/6 lb.

Ol. Pulegii B.P., 5 lbs. (a) 6/6 lb.; 1 lb. (a) 6/10.

Ol. Ricini Alb. Opt. Medicinal, 40 lbs. (a) 90/-cwt.; 9 lbs. (a) 11d. lb.; for export, 1 cwt.

CWI.; 9 108. @ 11d. lb.; for export, 1 CWI. drums recommended.

Ol. Rosmarini, Coml., 28 lbs. @ 2/3 lb.; 9 lbs. @ 2/6 lb.; B.P., 9 lbs. @ 3/- lb.; 1 lb. @ 3/3 lb.

Ol. Santal. Flav. Ang. B.P., 5 lbs. @ 52/6 lb.; 1 lb. @ 53/6 lb.

1 lb. @ 53/6 lb.

Ol. Sassafras, genuine, 28 lbs. @ 3/10 lb.; 1 lb. @ 4/5 lb.

Ol. Theobromas, B.P., 3-os. tabs., 28 lbs. @ 2/2 lb.; 7 lbs. @ 2/4 lb.

Ol. Wintergreen, Astificial, 5 lbs. @ 7/9 lb.; 1 lb. @ 8/3 lb.

Opium, B.P., 14 lbs. @ 37/6 lb.; 3 lbs. @ 33/- lb.; 1 lb. @ 39/- lb.; powdes, 6d. lb. extra.

*Minimum quantity at these prices; Home Trade, 3 Winchester Quarts assorted; Export, 12 Winchester Quarts assorted NOTE .- Only terms Net Cash with Order without discount, or orders accepted through London Merchants or Bankers. Goods carriage forward; all packages free; Export cases extra.

ALLIANCE DRUG & CHEMICAL CO., LONDON.

Offices: 34 LEADENHALL STREET.

KINDLY DETAOH THIS SHEET AND PLACE IT IN YOUR BUYING BOOK,

W. & R. HATRICK & CO.

MANUFACTURING CHEMISTS WHOLESALE & EXPORT DRUGGISTS

GLASGOW

EG to advise their country friends that owing to further calls on their staff to Military Service, they will be unable to call on them with the usual regularity.

OUR "SPECIAL OFFER" PRICES will be charged on orders sent direct, and the reductions in travelling expenses will enable us to give our Customers a further advantage.

QUOTATIONS, and SAMPLES if desired, will be sent by return, and inquiries for all Drugs and Chemicals are solicited.

The Highest Standard of Quality of

ASPIRIN B.P. PHENACETIN B.P. SALOL · SALICYLIC PARA-AMIDO PHENOL

HYDROCHLORIDE and BASE.

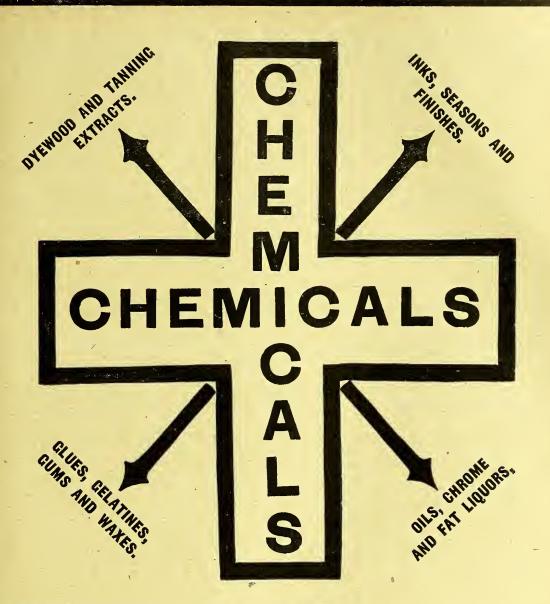
MADE IN CANADA by

The Chemical Products of Canada, Limited, Toronto.

Regular Shipments to London and Liverpool.

FOR SAMPLES AND QUOTATIONS-PROMPT OR FORWARD-WRITE

FRANK I. HIBBERT, 17 Colonial House, Tooley Street, LONDON, S.E.



- "TITEGRIP." THE Belting Adhesive and Preservative gives greater efficiency and economises power by enabling Belts to be run SLACK.
- "CHROMOLENE." THE one bath Chrome Tanning Extract.
- "NEUTOL." THE fat liquor for all purposes.

GOUGH, KIDSTON & CO. 12 BERMONDSEY SQ., LONDON, S.E.

City Office: 43-45 CT. TOWER ST., E.C. Tel. Add. "Kidstonism, Bilgate, London."
Telephone: 2029 HOP.

CHAS. ZIMMERMANN & CO. (Chemicals) Ltd.

9 & 10 ST. MARY-AT-HILL, LONDON, E.C.

Telegrams: "ACIDOLAN LONDON."

Telephones: Avenue 5933, 5934, 5935, 5936,

Entirely British Firm.

Chemicals for all purposes, Drugs, Essential Oils, &c.

STRICTLY WHOLESALE.

Acetanilide Acetic Acid Acetosalicylic Acid Adeps Lanæ Aloin Amidoantipyrin Amidol Aniline Dyes Antipyrine Arsenic Azodermin Benzoic Acid Bismuth Salts Boracic Acid Borax **Bromides** Caffeine Calcium Lactate Camphor Monob. Carmine Castor Oil Chloral Hydrate Chloroform Chlorophyll Citric Acid Cocaine Codeine Cod Liver Oil Coumarin Creosote Carbonate Creosote ex B. Wood

Devatol

Ether

Ergot of Rye

Essential Oils

Flower Oils Formaldehyde Gallic Acid Gelatine Glycerophosphates Guaiacol Absolute Guaiacol Carbonate Heliotropine Hetraline Hetroform Hexamine Hydrokinone Hypophosphites Ichthyol Insect Powder lodides* lodoform Lactic Acid Conc. Lanolin Lecithin Lithia Salts Lycopodium Lysol Lysol Toilet Preps. Lysoline Magnesium Methyl Salicylate Methyl Sulphonal Metol Morphia Opsonogen Orris Root Otto of Rose Oxalic Acid Papaine Ferri Ammon. Cit. Paraformaldehyde

Paraldehyde Paramidophenol Pepsine Petroleum Jelly Phenacetine Phenazone Phenolphthalein Pot. Bicarb. Pot. Bromide Pot. lodide Pot. Permang. Protargol Pyramidon Pyrogallic Acid Quinine Radium Radium Preparations Rodinal Saccharine Saffron Salicylic Acid Scarlet R. Soda Benzoate Soda Hyposulphite Soda Salicylas Subitol Sugar of Milk Sulphonal Synthetic Perfumes Tannic Acid Terpineol Thymol Vanillin Veronal

Yohimbine

Gignoux Freres & Co.

Manufacturers of

PHARMACEUTICAL PREPARATIONS.

Works: Decines, Nr. Lyons (FRANCE).

MEDICINAL EXTRACTS

SPECIALITY:

EXTRACT of MALE FERN

(Ethereal)

20/21% Filicine B.P. 24/25% Filicine

27/28% Filicine

(FOR HUMAN AND VETERINARY USE).

LIVER FLUKE

or Distomiasis

KILLS

Sheep and Cattle

EXTRACT OF MALE FERN

(Gignoux Freres & Co.)

CURES

Sheep and Cattle by Killing

LIVER FLUKE

Special Agents wanted in all Breeding Countries.

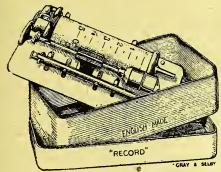
ENO'S

FRUIT

SALT!

Prepared only by J. C. ENO, Ltd., 'FRUIT SALT' WORKS, LONDON, S.E.

"RECORD" SYRINGES. HYPO.



Trade Mark "VALESCO."

IMPORTANT NOTICE.

In consequence of the everincreasing cost of all raw material and labour are compelled to advance our prices for "Record" Syringes, and from to-day the following are our Wholesale prices-net cash:

& '20 M. 1 cc.

2 cc.

5 cc.

10 cc. 20 cc.

87/-

120/-

152/-

170/-

220/-

subject to further increase without notice.

We would respectfully remind the trade that during the past 36 months we have spent much time and money to capture a hitherto exclusive German industry.

We confidently claim that our present output is equal in quality to the finest Syringe ever made in Germany.

Orders issued in strict rotation, and subject to Government permit which we procure.

HYPODERMIC NEEDLES

in Steel, Plat. Irid., Gold, Silver, and Nickel. All sizes.

SYRINGES HYPODERMIC

OF EVERY DESCRIPTION,

The Pelham Surgical Instrument Co., Ltd., Nottingham.

CONTRACTORS TO H.M. WAR OFFICE, MINISTRY OF MUNITIONS, INDIA OFFICE, RUSSIAN AND BELGIAN GOVERNMENTS, etc.

SOLE AGENTS: T

TURNER CO., LIMITED,

30 CRAVEN STREET, STRAND, LONDON, W.C.

Telegrams and Cables: "ADVULOID LONDON."

Code: A B C (5th Edition).

'Phone: 2221 Gerrard.

ENGLAND IS AWAKE. SEAMLESS RUBBER NIPPLES MADE IN GREAT BRITAIN. Holdfast Brand Nº 160 161 162 164 165 WHOLESALE & EXPORT. With or Without Hole. BABY SOOTHERS IN Various Patterns. ACTUAL MANUFACTURERS. LOWEST PRICES. SAMPLES FREE. INQUIRIES SOLICITED AT OUR NEW WORKS.











INQUIRIES SOLICITED AT OUR NEW WORKS:

KINGSNORTH RUBBER WORKS. A. S. CARTWRIGHT, Ltd. NORTHFIELD, BIRMINGHAM, England.

"SANOID WATER BOTTLE COVER.

(GERRARD'S PATENT).

WOOL - LINED QUILTED RETAIN THE HEAT



COMFORTABLE in USE GIVE SATISFACTION WEAR WELL

IN THREE COLOURS, PINK, RED AND BLUE.

8×6 10×6 12×8 12×10 4, 14×8 6/6 7/6 7/6 6/6 7/6 9/6 9/6 11/-11/- doz.

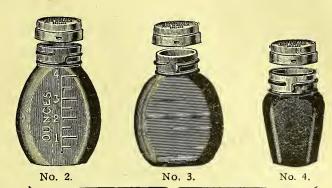
CUXSON, GERRARD & CO., LTD., OLDBURY

PREVENTING THE SPREAD OF TUBERCULOSIS, &c.

MADE IN DARK BLUE GLASS.



Fitted with SOLID NON-ABSORBENT RUBBER PLUG.



Fitted with SUPER-NICKELLED BAYONET SCREW CAP.

DOUBLE-ENDED



No. 1 D/E.



No. 2 D/E.



No. 3 D/E.



No. 4 D/E.

Fitted with METAL SCREW CAPS.

Fitted with NICKELLED SPRING-LID FUNNEL TOP & SCREW CAP BOTTOM.

Illustrations one-third actual size

PRICES AND FULL **PARTICULARS** APPLICATION. ON

BEATSON, CLARK & CO., LTD.,

Medical Glass Manufacturers

OPPOSITE

Blown Glassware.

'HIS is a new Department since the War, and we hope to retain it after the War, when prices fall to a reasonable level again. (Send for Chemical Glassware List.)

Ampoules (Neutral and Ordinary Glass), Burettes, Butyrometers, Chemical Thermometers.

WE USUALLY HAVE THE FOLLOWING IN STOCK-

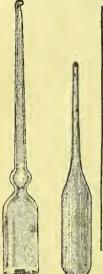
Burettes with tap, Cylindrical Glass Measures (Straight and Stoppered) Pipettes, Boiling Flasks, Beakers, Test Tubes, Vaginal Pipes, Ampoules (bottle shape), Tubes, Syringes (hypodermic and urethral), Dropping Bottles, Hand-made Bottles, 80-oz. Ground-in Stoppered Jars, etc. etc. etc.



Gas Condensation Tubes.



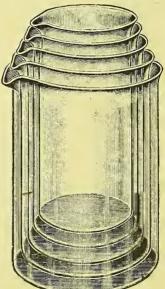
Pipette.



Pipette.

Burette.

Telephone; North 1344 (2 lines).



Beakers (in various sizes).

Assorted Nordo, London."

Telegrams:







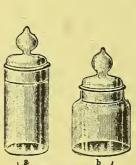
A Carter Neck Vials



Dropping Bottles.



Cylindrical Measures



Weighing Bottles.



Tubes.



Concentrated Perfume Bottlee

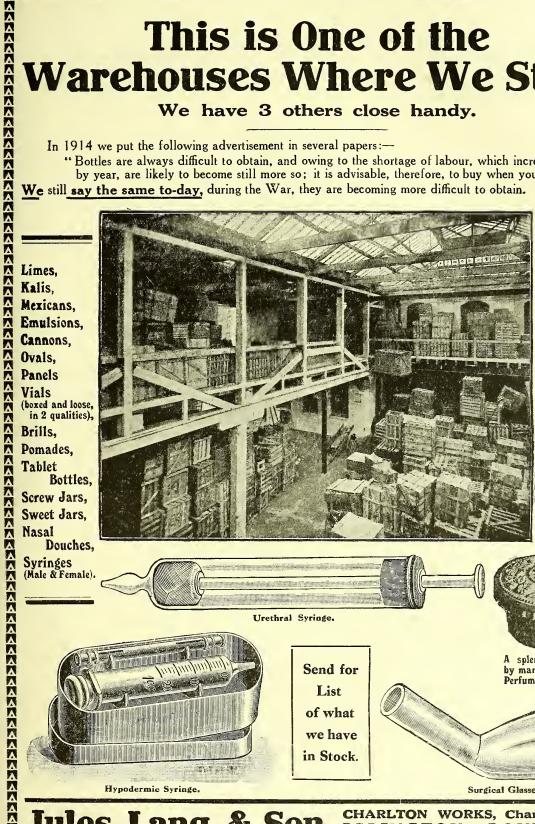
This is One of the Warehouses Where We Stock

We have 3 others close handy.

In 1914 we put the following advertisement in several papers:

"Bottles are always difficult to obtain, and owing to the shortage of labour, which increases year by year, are likely to become still more so; it is advisable, therefore, to buy when you can.

We still say the same to-day, during the War, they are becoming more difficult to obtain.





Undine.

Reagent Bottle.

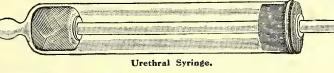
Scarcity of Boxwood Stoppers. Try



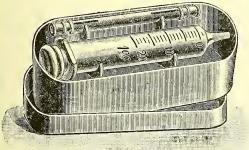
In various colours with name of firm or advert.



Syringes







Hypodermic Syringe.

Send for List of what we have in Stock.



Surgical Glasses,

CHARLTON WORKS, Charlton Place, Son, islington, LONDON.

Telegrams: "ASSORTED, NORDO, LONDON."

SURGICAL DRESSINGS.

ABSORBENT GAUZES

ABSORBENT RIBBON GAUZES

ABSORBENT WOOLS

ABSORBENT LINTS (Plain and Medicated) Telegrams—
"CARNEBROS, PHONE,
LONDON."

A B C Code, 5th Edition.

Telephones — DALSTON 3560 (Two Lines).

ABSORBENT GAUZE TISSUE (Tubular)

WOOD WOOL WADDING

GREY CARDED WOOL

JUTE TOW PEAT MOSS

GARNEGIE BROS.

BANDAGES

OPEN WOVE

CREPE

DOMETTE

FLANNEL

PLASTER OF PARIS

CRINOLINE

Contractors to H.M. Government

227/229 Essex Road, LONDON, N. JACONETS
HOSPITAL
SHEETINGS
BATISTES
OILED COTTON
OILED SILKS
GUTTA PERCHA
TISSUE
PLASTERS

Packed to suit customers' requirements.

Special quotations for large quantities and contracts.

WHOLESALE AND EXPORT ONLY

CHEMICALS & DRUGS.

Telegrams-

"CARNEBROS, PHONE,

LONDON."

A B C Code, 5th Edition.

Acetanilide

Aconitine

Acid Acetyl-Salicylic Aloin Benzoic

Amidopyrin

Carbolic

Ammonium Bromide

Chrysophanic

Apiol

Citric

Araroba

Diethylbarbituric Atropine

Gallic

Beherine

Lactic

Pyrogallic

Berberine Bismuth

Salicylic

Butyl Chloral Hydrate

Tannic

Caffeine Camphor

Tartaric

Telephones-DALSTON 3560

(two lines)

Cantharidin

Capsicin Caulophyllin

Chloral Hydrate

Chloroform Chrysarobin

Cimicifugin Colchicine

Creosote Diuretin

Emetine

Ergotin **Eserine** Ether Euonymin

Extract of Malt Fern

Gingerin

Glycerophosphates

Coa Powder

Guaiacol, Liquid Carbonate

Hamamelin

Hexamine

Homatropine

Hydrastine

Hydrokinone

Hyoscine **Hypophosphites**

Ichthyol

todine Iodoform Iridine

Jalap Resin Jalapin Ver. Ang.

Leptandrin Lithium Salts Lycopodium Menthol

Mercurials

Methyl Salicylate Methyl Sulphonal Oil, Aniseed

Oil, Camphor Oil, Eucalyptus

Oll, Peppermint

Papain Paraldehyde Pepsin

Pepton Phenacetin

Phenazone Phenolphthalein Contractors to H.M. Government

227/229 Essex Road, LONDON.

Pilocarpine

Podophyllin Potassium Bromide

> Iodide Sulpho-

Quinlne [guaiac Resorcin Saccharin

Salicin Salol Santonin

and the second of the second o

Scammony Resin Sodium Benzoate Sodium Bromide

Citrate Salicylate

Sparteine

Strychnine

Sugar of Milk Sulphonal Terebinth. Chia

Terpin Hydrate Theobromine

Thiocol Thymol **V**eratrine

Inquiries and correspondence invited.

WHOLESALE AND EXPORT

GLASS BOTTLES WHOLESALE and EXPORT



Medical Flats, Best Quality, Quinine Tinted.

Panels, ,, Pale Tinted, 2nd Quality.

Pale Green.

Vials, White Flint. All sizes.

Poisons, Actinic Green, Blue or Amber.

SAMPLES AND PRICES UPON APPLICATION TO-

FARROW & CO., 87 Borough High Street, LONDON, S.E.

LADIES' ABDOMINAL
and
SUPPORTING BELTS
ACCOUCHEMENT
OUTFITS
SANITARY TOWELS
BATHING CAPS

BATHING CAPS
BATH GLOVES
SPONGE BAGS
HOLDALLS
ETC. ETC.

ESTABLISHED 1850





0

PERFECTUM DOUCHE CANS (ALUMINIUM)
ENAMELLED IRON DOUCHE CANS
HOT WATER BOTTLES AND COVERS

ARTHUR BERTON, Ltd. Manufacturers, 15 and 17 WORSHIP STREET, LONDON, E.C. BEN MILLS A WATERFOLD MILLS BURY LANGASHIPS

BEN MILLS & WATERFOLD MILLS, BURY, LANCASHIRE.
SAMPLES AND QUOTATIONS ON APPLICATION.

GAUZE TISSUE

(AS GAMGEE)

CAPSICUM (METHYL SALICYLATE)

PINE WOOL
COTTON WOOLS

BANDAGES

GAUZES LINTS

PADS

Telegrams:-

"Renilreb London."

Telephones:-

City 998. London Wall 507.

C. MELIN & CO.

ESTABLISHED

7 India Street, Crutched Friars, London, E.C.

supply GLASS AMPOULES, TUBES and LAMP BLOWN ARTICLES

OF EVERY DESCRIPTION. PROMPT DELIVERY.

DIRECT FROM THE WORKS. :: WHOLESALE & EXPORT.

E. YOULDON, LTD. MANUFACTURERS OF

GLASS BOTTLES

TREBY ST. (late Carter St.), Maplin St., Mile End, London, E.

ESTABLISHED 1840.

Telegrams: "Youldon, Bowbur, London."

Telephone: East 132.

WM. WARNE & CO.LTD. DIA RUB

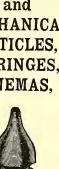
MANUFACTURERS.

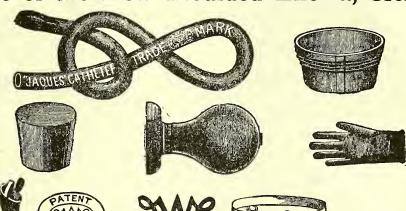
Patentees of the New Moulded Enema, &c.

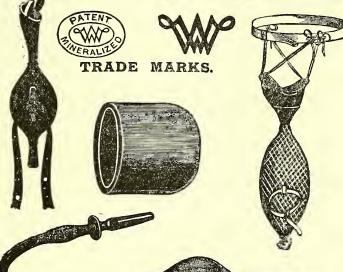


Manufacturers of every description of

SURGICAL. CHEMICAL. GYMNASTIC. DOMESTIC. VETERINARY. and MECHANICAL ARTICLES. SYRINGES. ENEMAS.







WATER BEDS and CUSHIONS. THREAD, HOSE, TUBE, TOBACCO POUCHES. MATS, BANDS, WATERPROOF GARMENTS. &c.







Manufacturers of every description of

INDIA RUBBER. 29 GRESHAM ST., LONDON, E.C.



WHOLESALE AND EXPORT ONLY.

A Novelty in Foot Warmers

A really High - Class Line for

Made of finest White Ivory China, and superior finis 1 to those usually sold by Ironmongers, &c.

FRICES:

2-pint,

27/- doz



Has no corners, therefore more comfortable for patient. Looks smart in a Chemist's stock.

> PRICES: 4-pint, 33/- doz.

"Home" Terms, carriage forward, packages containing 1 dozen assorted sizes, 2/6 each (NET), not returnable.

THOMAS SWALES, 24 Butts Court, and 89 Albion St., LEEDS, ENGLAND.

CHEMISTS!

WHOLESALE, WE CATER SPECIALLY

FOR ALL YOUR PRINTING REQUIREMENTS

50 YEARS' EXPERIENCE OF

SPECIAL

AND

enable us to meet all your demands for

FIRST-CLASS WORK at LOWEST PRICES

Write us or 'Phone our London Office to call TO-DAY.

ALF. HARRISON & SONS

Printers,

BURLEY ROAD, LEEDS.

London Representatives :

THE L. STANLEY PAPE ADVERTISING SERVICE, 'Phone : Gerrard 4008 Regent House, Kingsway, W.C.

INGRAM'S





"AGRIPFA" Band Teat (Black

(BRITISH MADE BY BRITISH LABOUR) The

Nearest Copy

Natural Nipple

(Note the patent band around the teat that grips tightly to the neck of the bottle.)

or Transparent Rubber). The "AGRIPPA" Band Teat will fit any boat-shape feeding bottle, and will not slip off.

The Teat and Valve can be sterilised or cleansed by simply boiling in water, and the quality of rubber will not be deteriorated thereby.

The Patent Band Valve is devised according to the most up-to-date theories, and affords a means of regulating to perfection the flow of the milk food.



" AGRIPPA" Band Valve (Black or Transparent Rubber).

The "AGRIPPA" Patent Band Teat and Valve are protected by the P.A.T.A., and are supplied on the understanding they will not be re-sold to Chemists and Retail Trade at lower prices than quoted below

GOODS.	Minimum Wholesale Prices to Chemists,	Minimum Retail Prices.
"AGRIPPA" TEAT (Patent No. 17617) Black or Transparent	2/6 per Doz. Net 27/6 per Grs. Net (for orders of 3 Doz. and over).	$3\frac{1}{2}$ d. EACH.
"AGRIPPA" VALVE (Patent No. 17617) Black or Transparent	2/- per Doz. Net 22/- per Grs. Net (for orders of 3 Doz., and over).	3d. EACH.

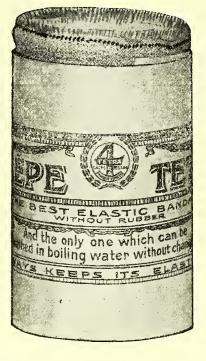
OBTAINABLE FROM ALL WHOLESALE HOUSES.

CRÉPE BANDAGES

The Crêpe that can be Boiled ...

Any article which is worn next to the skin can only be cleansed by boiling. Crêpe Bandages containing wool cannot be boiled as the animal tissue is destroyed and their elasticity is lost.





Tetra Crêpe Bandages are made solely of pure cotton and are the only bandages of this kind which can be boiled in washing. They are soft, durable and reliable in wear, and can be cleansed any number of times.



Ten widths in stock, 2'', $2\frac{1}{2}''$, 3'', $3\frac{1}{2}''$, 4'', 5'', 6'', 8'', 10'', 12''. P.A.T.A. prices ensure satisfactory profit. Attractive showcards supplied to Chemists on request.

SOLE DISTRIBUTORS FOR THE BRITISH EMPIRE TO

THE WHOLESALE TRADE ONLY

CLEMENT & JOHNSON 19 · Sicilian Avenue LONDON · W· C

TELEGRAMS: "CLEMALEXA LONDON." TELEPHONE: 4373 CITY.

CREPE BANDAGES.

LIGHT AND COMFORTABLE TO WEAR.



ELASTIC, **BUT CONTAINS** NO RUBBER.

Fig. 1331.—The "Saffron" Crepe Bandages, fast edges, $5\frac{1}{2}$ yards long when width 2 in. stretched out— ... per doz, 8/2 10/6

Full directions for use with each Bandage. Cotton Elastic Web Bandage ... per doz. yards, 2 in. 4/7, 2½ in. 6/-, 3 in. 7/2 Leg Bandage, 3 yards long, fitted with tapes, ready for use, each 2/-

THE "EMPIRE" **ELASTIC HOSIERY.**

Stockings, Knee Caps, Anklets. Leggings, per pair 4/7 3/7 3/7 3/10 Carriage paid on orders of £2 and upwards. Cotton Elastic, ordinary quality, for hard wear 5% discount allowed for prompt cash off above prices.

We are the right House for British-made Goods, Anti-Rheumatic Rings, Catheters, Enemas, Elastic Hosiery, Hot Water Bottles, Injection Syringes, Pessaries (Quinine, &c.), Sponge Bags, Trusses, Water Beds, Water and Air Cushions, Waterproof Sheeting, and every description of Rubber Goods.

ILLUSTRATED PRICE LIST POST FREE.

OUR GOODS ARE RIGHT.

MONEY BACK IF NOT SATISFIED.

BURGE, WARREN & RIDGLEY, LTD.,

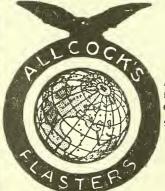
91 & 92 GREAT SAFFRON HILL, LONDON, E.C.

ESTABLISHED 1847,

REMEDY OF 60 YEARS' STANDING.

Alicock's Plasters Allcock's Corn and **Bunion Plasters** Brandreth's Pills

Three Reliables.



Prices and Terms on application to

ALLCOCK MANUFACTURING. COMPANY

22 Hamilton Sq., Birkenhead.

" Sold all round the World."

A return of 50% to 65% on outlay can be made by all Chemists who will handle 'HOME' BATH CABINETS.

BRITISH-MADE THROUGHOUT.

To give you a fair start, we offer a Sample Cabinet complete, and a supply of strong selling literature at the following cut prices, Cash with Order. With Inside Spirit Heater 25/9, Retailing at 38/6 35/3, -,,_Outside ,, __ ,,

Riley Bros. (1914) Ltd., Bradford THE ONLY MAKERS TO THE TRADE.

EXCELSIOR CREPE BANDAGES.

Owing to the War, the supply of Crepe Velpeau Bandages is discontinued. We are, therefore, placing on the market a Bandage of ENGLISH manufacture to replace it, which will be sold as GIMBER'S EXCELSIOR

EXCELSIOR

NAME

CREPE BANDAGE An Elastic Bandage. Con-

An Elastic Bandage, Containing no Indiarubber, taining no Indiarubber, ings, Webs, Bandages, and at half the cost, Three sizes, about 2, 22, and 32 inches wide. Excelsior Crepe Abdominal Binders.—Useful after many Abdominal Operations, and for ladies after confinements. Two sizes: 8 & 11 in. wide, of fraudust and uselest imitations and reject all

after confinements. Two sizes: 8 & 11 in. wide.

CAUTION—Beware of fraudulent and useless imitations, and reject all Bandages not bearing the above Trade Mark on the Wrappers.

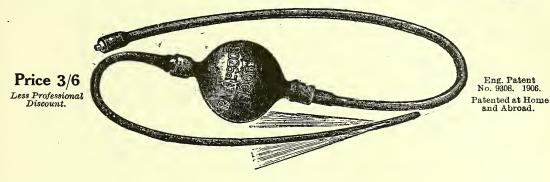
Wholesule of Warsham Surgical Bandage and Instrument Makers, And of all Wholesale Druggists, Chemists, Surgical Instrument Makers, & Telephone: New Cross 1601. Descriptive Circular & Price List on application.

HYDRION ? A Powerful Antiseptic Tablet quickly soluble in water: for Dressing Skin Wounds, Lacerations, Compound Fractures, Burns, &c.

The formula of an eminent surgeon, obtained after years of scientific research and clinical application. "Sepsis," where directions are faithfully carried out, is unknown. See Lancet, Dec. 19, 1914, pp. 1438 et seq.

Write for Pamphlet and Free Sample.

The "NEW CENTURY" Urethral Syringe.



CHIEF POINTS OF VANTAGE:

- (1) Simplicity and comparative comfort in use.
- (2) Ease of complete sterilisation.(3) Absence of hard material in construction.
- (4) Remarkable absence of distress in use.
- (5) Quickness in controlling discharge.
- (6) Unlimited quantity of irrigating fluid.

COMPRESSED INJECTION TABLETS, SPECIALLY MANUFACTURED for use with the "NEW CENTURY" URETHRAL SYRINGE.

Each tablet makes half a pint of non-irritating injection. Glass Tubes, containing 12 tablets, price 6d. each tube.

"DETERGOL" BRITISH MADE WITH BRITISH MATERIAL.

AN IDEAL ANTISEPTIC DEODORANT DISINFECTANT.

Contains 20 % more Cresol than any other similar preparation.

Superior to any German Preparation.

Surgical Instruments can be safely sterilised and disinfected in a few seconds without danger of corroding by using "Detergol."

USED BY THE MEDICAL PROFESSION FOR FOURTEEN YEARS.

TABLETS, PILLS, etc., and
CHEMICAL and MEDICINAL PREPARATIONS of all descriptions

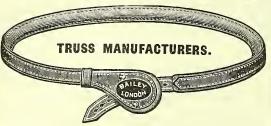
MANUFACTURED BY

HOUGH, HOSEASON & CO.LID

Wholesale Manufacturing Chemists
Contractors to H.M. Government.

MANCHESTER.

BAILEY'S



WHOLESALE.

BEST QUALITY.

BOTTOM PRICES.

MADE ON THE PREMISES. Illustrated Price List free.

Specials Dispatched in 24 hours.

Per dozen. Single Double 25/- 41/-

18/6 34/6

Bailey's Circular Trusses ... 2nd Quality
"Special "Marone," with Customer's Name in Gold on orders of not less than 1 dozen

28/6 47/-

Correspondence Invited.

Best Shipping Terms.

"ABC" TRUSSES SUSPENSORIES

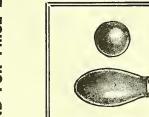


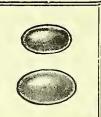
Assorted-A, small; B, medium; C, large Bags.

H. BAILEY & SON, 38 OXFORD STREET, & LONDON, W.

To Wholesale Buyers & Shipping Merchants only.

MEDICINAL GELATIN





NQUIRIES

EMPTY VETERINARY CAPSULES.

Hand or Machine Made. Absolutely Pure Contents.

To suit all Climates. Best Finish.

John Tye & Son, Manufacturing 457 Caledonian Road, London, N.

SEND FOR PRICE LIST,

A. DE ST. DALMAS & CO.,

LEICESTER, ENGLAND.

MAKERS OF

MEDICAL PLASTERS

Felt Plasters,
Marginal Plasters,
Rubber Adhesive Plaster,
Menthol Plaster,
Dental Plasters,
Corn Plasters,
Salicylic Plaster,
Plaster-of-Paris Bandages,

Porous Plasters,



Spread Plasters,
Hospital Strapping,
Ribbon Plasters,
Breast Plasters,
Kidney Plasters,
Dermal Plasters,
Mustard Leaves,
Court Plasters,
Bedsore and Wound Pads.

ADHESIVE PLASTER SPECIALLY PREPARED AND PACKED FOR EXPORT.

AND OF

Surgical Bandages

Water-dressing Bandages,
Calico Bandages,
Crêpe Bandages,
Elastic Web Bandages,
Domette Bandages,



Fastedge Bandages, Cotton Net Bandages, Flannel Bandages, Para Rubber Bandages, Suspensory Bandages.

The "Leicester" Perfect Plaster-of-Paris Bandages (Patent).

CONTRACTORS TO HIS MAJESTY'S GOVERNMENT.

THE

LIVERPOOL LINT GO

MARK STREET MILLS. NETHERFIELD ROAD NORTH. LIVERPOOL,

MANUFACTURERS OF

LINTS. BANDAGES. COTTON WOOLS, SURGEONS' TOW. CARBOLIZED TOW. SPLINT PADDING. WADDINGS, &c. &c.

As supplied to Home and Foreign Governments.

"IMPERMIETTE" (Waterproof). "IMPERMIETTE" BED SHEETING. "HEALTH" CHEST PROTECTORS. "YULNOPLAST."

ABSORBENT TISSUE

Telegrams:



FIRST FIELD **DRESSINGS**

LINT LIVERPOOL

FOR

Vaccine, Sera, Rat Virus, &c.

EVANS SONS LESCHER & WERR

Liverpool and London New York. U.S.A.

See also pp. 19, 36, 74, 133, 137, 143, 146, 150, 154, 164, 173, 210, 213.

WHOLESALE.

CONTRACTORS TO THE WAR OFFICE.

EXPORT.

ACTUAL MANUFACTURERS OF

RBRUSHES

MEDICAL PURPOSES. Throat, Nose, and Ear Brushes a Speciality.

THE ART & MEDICAL BRUSH MFG. CO., ALDERSGATE, LONDON, E.C.

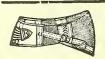
Proprietor: P. BAKER.

Telephone: City 362.

Works: WALTHAMSTOW, ESSEX, and at ISLINGTON, N.

J. H. HAYWOOD, Ltd. Surgical and Athletic Appliance Manufacturers, Castle Gate, NOTTINGHAM.

Surgical and Athletic Appliance Manufacturers,



SPECIALITIES FOR WINTER.

SURGICAL ELASTIC HOSIERY, TRUSSES, SUSPENDERS, BRACES, LADIES' & GENTLEMEN'S BELTS for SUPPORT and WARMTH .
made in Fleecy, Felt, and Chamois, etc.

PROTECTORS and SLEEPING SOCKS, ELASTIC and R WRISTLETS, ARM PIECES, ELBOW PIECES and KNEE CAPS for Football, Golf and Hockey.

DRUGGISTS' SUNDRIES, INDIA RUBBER HOT WATER BOTTLES and COVERS, ELASTIC WEB BANDAGES, all lengths, widths and qualities.



OUOTATIONS AND SAMPLES ON REQUEST. LOWEST



Telephones for Orders. MUSEUM 700 to 706
Telegrams:- "PHARSALIA, EUSROAD" LONDON.



THE

"RONOLEKE"

pronounced (RO-NO-LEAK).

SIZES:

 $8 \text{ in.} \times 6 \text{ in. to } 14 \text{ in.} \times 8 \text{ in.}$

Prices - 34/6 to 56/0

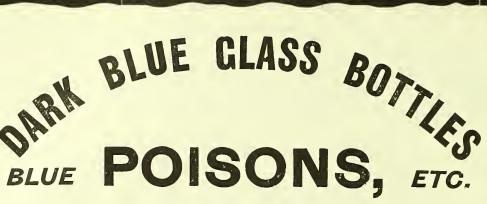
Per Dozen.

Special prices on orders for 3 doz.

Write for full particulars.

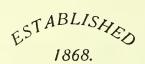
E are now in a position again to execute all orders, after a most successful opening season. There will be a big public demand for a month or two yet, so please look to your stocks.

258, Euston Road,



AND ALL BLUE GLASS GOODS
A SPECIALITY.

Also
WHITE FLINT,
AMBER,
ACTINIC GREEN.



R. H. Barrett, Ltd.

GLASS BOTTLE MANUFACTURERS,

The Oval,

Cambridge Heath,

LONDON, N.E.

J. BARCHAM GREEN & SON, Hayle Mill - Maidstone, Kent.



Makers of Filter Papers to replace the German Nos. 595, 597, 598, 602, 604, etc.

Soxhlet Thimbles,
Drying Trays,
Drop Reaction Papers,
Filter Pulp, etc.

Samples and Price Lists can be obtained from the principal Laboratory Furnishers.





AWARDED A GOLD MEDAL (The Highest Honour)
At the International Congress of Medicine, London, 1912.

NO ADVANCE IN PRICE. NO ALTERATION IN SIZE OR QUALITY.

SOUTHALLS TOWELS !!

THE ORIGINAL AND BEST

Size O withdrawn for the present.

SOLD IN VARIOUS SIZES AT POPULAR PRICES.

Sizes	 1	2	3	4	5	x	xx	Blue.
Retail Price	 1/-	1/6	2/-	2/-	3/-	2/9	3/-	3/- per pkt. of 1 doz.
Trade Price	 9/9	14/6	19/6	19/6	29/3	27/-	29/3	29/3 per gross.

Fully illustrated and descriptive list, containing particulars of Accouchement Sets, Accouchement Sheets, Compressed Towels, Protective Aprons, etc., etc., free on receipt of postcard.

SOUTHALL BROS. & BARCLAY, LTD., BIRMINGHAM.

EFFICIENCY!

COMBINED WITH ECONOMY

THE "DEMON" SEALING MACHINE

—the Quickest, Simplest and Surest method of Parcelling.



Ask for particulars and illustrated folder, showing unique range of paper tape suitable for all kinds of parcelling,

PERFECT SLITTING. FAULTLESS WINDING. ATTRACTIVE APPEARANCE.

60% cheaper than string, and produces a parcel "Pilfer - Proof," Our representatives are not mere "Salesmen." They are Experts in will ensure a

FREE DEMONSTRATION.

CUMMED PAPERS, LTD.

47 Rutland St., LEICESTER; & 19 Fore St., LONDON.

HARVEY'S GREAT REMEDIES FOR HORSE

WITH THE ADDED REMEDIES.

(Protected Prices.)

HARVEY'S ACONITE POWDERS. For Chronic Cough, Broken Wind, Roaring, &c.

HARVEY'S WORM AND CONDITION POWDERS.

HARVEY'S WATTS' EMBROCATION, or Curb Bottle.

HARVEY'S WATTS' RED LOTION.
For Wounds.

HARVEY'S HAIR RESTORINGOINTMENT. HARVEY'S EDOS, or Tasteless Purging Powder.

THE ADDED REMEDIES:

HARVEY'S KOPPOS POWDER,

For Lymphangitis, or Weed, and Inflammations generally. In Tins, 5/- and 10/- each.

HARVEY'S THRUSH SPECIFIC. In Tins 1/9 and 3/- each.

HARVEY'S HOOF OINTMENT.
In Tips. 3/- and 6/- each.

In Tins, 3/- and 6/- each.
Also

HARVEY'S HAIR RESTORER (HUMAN).

A successful modification of the Veterinary Preparation. In Pots, 2/- each.

The REMEDIES may be obtained of all the leading Druggists'
Sundries Houses.

HARVEY & COMPANY, LTD., DUBLIN.

"EXTIRMO"

(Regd. Trade Mark)

Kills and Mummifies Rats, Mice and Beetles.

The Public KNOW IT, and ask for it. This is proved by our Mail Order Business, but we much prefer the sales coming through the Wholesale or Retail Chemists. We are about to make "EXTIRMO" better known by an extensive Press Advertising Campaign, and we wish every Chemist to get in a stock to cope with the demand this Winter.

"EXTIRMO" was discovered, after several years of research work, by an eminent Chemist, at the request of a London Furrier in a large way of business who lost thousands of pounds' worth of stock through the plague of Rats, and had tried all sorts of Rat Poisons without the desired result until he tried "EXTIRMO."

To encourage Retailers to stock "EXTIRMO," we will present $1\frac{1}{2}$ dozen 6d. Tubes (value 6/-) for orders of One Pound, or $\frac{1}{2}$ doz. 6d. Tubes for orders of 10/-received within 7 days of this issue.

6d. Tubes 4/- doz.; I/- Tins 8/- doz.; I/6 Tins I2/- doz.; 2/6 Tins 20/- doz. Less I5% for orders of £I and upwards.

Order "EXTIRMO" A (Yellow Tin) for Rats and Mice.

"EXTIRMO" B (Green Tin) for Beetles and Cockroaches. £1 orders show 55%, and 10/- orders show 41% on selling prices.

Cash must accompany order to receive bonus benefit.

"EXTIRMO" is on P.A.T.A.

Showcards and Fine Art Cut-outs of Rats, Mice and Beetles, will be sent with goods for window display.

EXTIRMO LTD., School Street Works, HULL.

[&]quot;EXTIRMO" FLYCATCHER (2 in. tape) will keep two Seasons. Please note for 1917.

[&]quot;EXTIRMO" POMADE destroys immediately NITS, LICE and other Pediculi. In 6d. Tubes and 1/- Tins.

By Royal Warrant of Appointment to B.M. The King.



By Royal Warrant of Appointment to B.III. The King.

Only ONE Address. DAY& SONS, ESTABLISHED (CREWE)
HORSE CATTLE SHEEP& DOG MEDICINES

Only ONE Address.

LARGEST SALE IN THE WORLD.



DAY'S BLACK DRINK

Cures Colic or Gripes in Horses or Cattle, Scour and Weakness in all Young Stock, Blown Cattle and Sheep, Debility, Chills and Low Condition in all Stock.

Price 1/8 per bottle

DAY'S HUSKOLEIN

Almost infallible for Tape Worms in Lambs and other Animals; for Husk or Hoose in Calves, Lambs, &c. A speciality for Worms in Horses and Colts.

. 6/6 per bottle

DAY'S ZOMO-SAL.

For Blood Disorders, Humours; General Weakness, Surfeits, Indigestion, Sterility, &c., in Horses and Beasts. Promotes Growth of Bone. Makes animals "fit" for Show or Sale

In Canisters at 7/6, 20/-, and 40/-

DAY'S RED DRINK

OR COW DRENCH,

For Costiveness, Loss of Cud, Indigestion, Garget, Colds, Fever, Hidebound, &c., in Cattle. Prepares Cows for Calving, Prevents Milk Fever, and cures Bad Cleansing.

12|= per doz. packets. The Ewe Drench for Ewes, 3|6 per doz.

DAY'S OILS

(THE PURIFIED DRIFFIELD OILS)

Heal all Wounds in Horses, Cattle, and Sheep, Sore Teats and Swollen Udders in Cows and Ewes. For Anointing in difficult Lambing or Calving.

2/6 and 6/- per bottle.

DAY'S WHITE OILS.

A Safe Embrocation for Sprains, Swellings, Windgalls, Sprung Sinews, Rheumatism, Sore Throat, Weak Joints, &c. 2/6 and 6/- per bottle.



DAY & SONS' "ORIGINAL" MEDICINE CHESTS

Price £1 4s., £2 4s., £5, and £10 10s.; Carriage Paid.

Arranged for Horses, Cattle and Sheep; Horses only; or to suit any class of stock.

WHEN ORDERING PLEASE STATE REQUIREMENTS.

The Chest Illustrated is similar to that at £5 and £2 4s.

Great Specialities.

ONLY GENUINE FROM

DAY & SONS, CREWE, LTD., CREWE, ENGLAND.

LIBERAL TERMS FOR FOREIGN BUYERS.

KAY BROTHERS, Ltd. STOCKPORT.

Manufacturing Chemists.

BIRDLIMES and FLY GUMS for all climates.

FLYPAPERS, | "Big Bat" & "Falcon" Brands. Non-Poisonous.

Spiral Wire, "Vampire." FLYCATCHERS. Cavity Tape, "Flysac." TAPES & BANDS. "Scorpion."

" Dragon.' "Viper. Roll Band, (2 in. wide.)

CEMENTS.

"COAGULINE." Transparent Cement for broken articles, 6d. bots.
"TENASITINE." A Liquid Cement in Tubes, 1d., 2d., 3d. & 6d.
"KLINX." Hydraulic Cement (heatproof), 6d. tins.
"CUE CEMENT." 6d. & 1/-.

SANITARY FLUID. For Disinfecting and Deodorising. In Tins or Casks.

- " PULVICIDE" (Patented). A Dustlaying Compound. Agents wanted for its introduction to Municipalities.
- "LINSEED COMPOUND." P.A.T.A. A Cough Mixture of 50 years' proven excellence.

FOR

Druggists' **Sundries**

EVANS SONS LESCHER & WEBB Limited

Liverpool and London AND

York, U.S.A. New See also pp. 19, 36, 74, 133, 137, 143, 146, 150, 154, 164, 173, 204, 213.



IIGHLY polished, printed, coloured or embossed. Pure tin, guaranteed free from lead. For wrapping chocolates, cigarettes, cigars, foodstuffs, etc. etc.

"ONFECTIONERS' and Bakers' trays, stock boxes VENESTA, LTD.

1 GT. TOWER STREET,
LONDON, E.C. and bins, and cases of all descriptions for home





"ROFINA Rats year valu nece 300 Mr. writ a sit of w

"RODINE" MAKES FINAL RATION FOR RATS.

Rats cost the country £15,000,000 a year. They eat and destroy much valuable food. To stop this waste the necessary ration for rats is "RODINE." It makes a clean sweep.

300 RATS WITH ONE TIN.

Mr. HEFWORTH, Chemist, Loughborough, writes:—"A customer got 300 dead rats from a single tin of 'RODINE.' There were plenty of witnesses that the dead rats were counted."

"RODINE" yields nearly 100% Profit to appointed Agents. Get it direct.

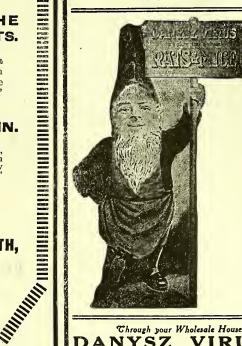
HARLEY, Manufacturing Chemist, PERTH, SCOTLAND,

> EXPORT AGENTS: TOZER, KEMSLEY & MILLBOURN, 84 Fenchurch Street, London, E.C.



DANYSZ VIRUS

Is on the P.A.T.A. LIST.



Retail Prices

2/- Per Single Tube 5/- For Three Tubes

LEAVE YOU A PROFIT of 75% and 50% RESPECTIVELY.

LIQUID VIRUS for large applica-tions at 6/- per quart bottle, mak-ing about 5 lb. of bait.

SHOWCARDS.-Dummy Boxes, Clockwork Cats for Window Display, Circulars, Postcards, &c., on application.

Through your Wholesale House, or direct from

DANYSZ VIRUS, LTD. (Dept. G A), 52 Leadenhall Street, LONDON, E.C.





BARRACLOUGH & WATER LANE, LEEDS.

Baking Powders Egg Powters Custard Powders Flavouring Essences Original Health Salt Premier Health Salt "Spa" Health Salt

Packers of Own Name and other Specialities Liver Salt Stain Varnishes Lacquers Furniture Cream Fly Papers Fly Traps - "Web" $3\frac{1}{2}$ & $6\frac{1}{2}$ Lin. Liq. and Honey Balsam Exhibition Health Salt 7½ Liq. Aniseed & Honey

INQUIRIES SOLICITED.

FREDK. FINK & CO.,

10 & 11 MINCING LANE, LONDON, E.C.

SPECIALITIES.—Gums Arabic and Tragacanth as imported or finely powdered.

WATER BO

BEST ENGLISH MAKE JAMES TOMPKINS LIMITED

ALL KINDS OF SURGICAL RUBBER GOODS.

GEORGE HAYNES & CO.,

Hampstead Cotton Mills, Stockport.

MANUFACTURERS OF

BLEACHED & ABSORBENT COTTON WOOLS, BANDAGES, &c. &c.

FIVE GOLD MEDALS, FIVE SILVER MEDALS. & DIPLOMA OF HONOUR. The Highest Awards given to any Cotton Wool or Lint Manufacturers.

Telephone: 112 STOCKPORT.

Telegrams: "HAYNES STOCKPORT."

DISINFECTANTS

OF ALL KINDS

Cheapest Elakers of Co-efficient Acids and Fluido: 1

MENRY ELLISON, LTD., CLECKHEATON, YORKO

DeVilbiss

ATOMIZERS SPRAYS

FOR MEDICAL AND TOILET USE

They are Guaranteed

Full Stocks in London

THE DEVILBISS MNFG. CO., 71 Newman St., LONDON, W.

JOHN E. RAWORTH

CHARTERED PATENT AGENT,

PATENTS, TRADE MARKS AND DESIGNS.

THE
OLD MANSION HOUSE, and QUEEN ANNE'S CHAMBERS,
73 Cheapside, E.C. WESTMINSTER, S.W.

Hot Water Bottles

BEST ENGLISH MAKE. HEAVY WEIGHT.

Send for Prices to

GALEN MANFG. CO., LTD.,

Wilson Street, New Cross, London, S.E.

BOR PARCEL SEALS

THE OUICKEST STRONGEST SEAL

on the market is the **EBOR PARCEL SEAL**, which sticks quickly and never comes off. Cheap, quick in use, good style, capital advertising.

SESSIONS, PRINTER, YORK.

APPLY TO

AUG. LEVERMORE & CO. Ltd., 8-10 Ct. St. Holons. Telegrams: LEVERMORE LONDON Telephone 4613 Central

W. PINDAR & CO., Druggists' SPECIAL WELDED STEEL GALVANIZED COATING PANS.

Write for our New Hustrafed Catalogue, of 24 pages, of PILL MACHINERY, TABLET MACHINERY, COATERS, TINCTURE PRESSES, CORKING MACHINES, EMULSIFYING MACHINES, SUPPOSITORY MACHINES, PERCOLATORS, DRUG MILLS, SIFTING AND MIXING MACHINES.

Sher Machinery for Manufacturing Druggists and Chemiste.

BROCKLEY, LONDON, S.E. Telephone: New Cross 1065.

RUSSIAN CANTHARIDES, LYCOPODIUM, ERGOT.

IMPORTERS-

Douche Fittings.

Douche Tubing.

ANGLO-RUSSIAN INDUSTRIAL & TRADING ALLIANCE, Ltd. 6 ELDON STREET, LONDON, F C.

SURGICAL RUBBER **∜ULCANITE** Goods

of every description.

Syringes, Teats, &c.

HIGGIN. Ltd. 265 DEANSGATE. Manchester.

JMINOUS PAINT

(Dr. BALMAIN'S)

AS SUPPLIED TO H. M.GOVERNMENT MEW DEPARTMENT OF LUMINOUS PAINTED ARTICLES-GOOD SELLING LINES FOR CHEMISTS.

C. HORNE, Luminous Paint and Radio-Active Compounds, NORTH CHEAM, SURREY, ENGLAND.

CHEMISTS' STAMPOL SEALS AND STENCILS . O. D. RICHFORD.

Full Illustrated Lists Free.

8 & 9 Snow Hill.

LONDON, E.C.

Special Terms to Chemists.

A SPECIALITY.

TOBACCOS! CIGARS! CIGARETTES!

Every known Brand at Manufacturer's own List Prices. Endless variety of Tobacconists' Fancy Goods & Shop Fittings. The Trade only supplied Opening orders a Speciality. Send for Price List.

SINGLETON & COLE, LTD., Cannon Street, BIRMINGHAM AND BRANCHES

- 6d. "THE FLAG," Cartoned, 3/- doz.. 33/- gross.
 6d. "CREAM OF ROSES," Decorated Tin in four colours, Rose design on Cream ground, 4/2 doz.,
- 48/- gross.
 1/- ALUMINIUM HOLDER, 7/6 doz. and bonus 2.
- Sample of each for stamps 1/3.

 STOKES & CO. Ltd., 31/35 Lower Castle Street, BRISTOL



This popular article is largely advertised and stocked by all Wholesale Houses!

TRIAL BOTTLES 6d. size, supplied con pretty showcards. 4/6 doz.; 1/- size, 10/- doz.; 3/6 size. 30/- doz.

THE SHADEINE CO., 58 WESTBOURNE GROVE, LONDON, W.

GAUZE SWABS with selvedge edges.

Sizes from 2 × 2 to 8 × 8.

Also SELVEDGE GAUZE IN 6-yard rolls.

THREEFOLD. VARIOUS WIDTHS.

SAMPLES AND PRICES ON APPLICATION.

HOSPITALS & GENERAL CONTRACTS CO., LTD. 19, 21, 25 to 35 MORTIMER STREET, W.



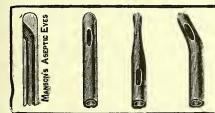
31-33 HIGH HOLBORN, W.C.

TO LET.



C. M. Smokers Dentifrice in particularly appealing tins, made for them and advertised to them. May we Send a Sample and tell you about a wonderfully successful window show? Advertised 6d. P.A.T.A. 42d. Cost 2/3 doz.

CHRISTYS, OLD SWAN LANE, E.C.



R. MANSON,

Culvert Works, Culvert Road, South Tottenham, London, N. WHOLESALE AND EXPORT ONLY.

Manufacturer of CATHETERS and BOUGIES, DRUCGISTS' SUNDRIES, SURCICAL RUBBER COODS and DRESSINCS.

Ask for Price Lists.

WHOLESALE ONLY.

Established

Surgical Dressings, Absorbent Lints, Bandages, Gauzes, &c.

Samples and prices on application.

VERNON & CO., Ltd., Penwortham PRESTON. Also 9 Fore Street Avenue, London, E.C.

DISPENSING BOTTLES & PH

CLEAR BLUE TINTED .- 3 and 4 oz., 6 and 8 oz., 12 oz., 16 oz.

BEST QUININE TINTED .-- 3 and 4 oz., 6 and 8 oz., 12 oz., 16 os.

Plain or graduated.

WHITE PHIALS.—\(\frac{1}{2} \) oz., \(\frac{1

6 oz., 8 oz., 12 oz.

PANEL BOTTLES.

We send six gross assorted or otherwise, carriage paid within leven miles, and to certain stations. Particulars on application.

Good Quality. For 6 and 8 oz. bottles, 1/6 per gross in 6 gross bags. For phials 1/- per gross in 3 gross bags.

I. ISAACS & CO.,

106 MIDLAND ROAD, ST. PANCRAS, LONDON, N.W. Or ISLINGTON BOTTLE COMPANY, 7 New Inn Yard, Tottenham Court Road, London, W. Orders sent to either establishment have attention. Established 100 Years.

FOR

EVERYTHING

Ask our Prices.

EVANS SONS LESCHER & WEBB

Liverpool and London AND New York.

See also pp. 19, 36, 74, 133, 137, 143, 146, 150, 154, 164, 173, 204, 210.

"CURASOL" Boracic-Acid Foot Socks

THE ORIGINAL & GENUINE. Retail at 3½d. per pair.

A FAST SELLING AND POPULAR SIDE LINE. STOCKED BY LEADING WHOLESALE HOUSES. WHEN ORDERING SPECIFY "CURASOL" BRAND.

SEND FOR SAMPLE AND TERMS TO-

Sole Proprietors, ANDERSON, WALL & CO. Manufacturing Chemists, 9 Broomhill Market, ILFORD, E.

STERILE SURGICAL CATGUT

ALL-BRITISH.



We are actual Manufacturers, by Aseptic process, under Hygienic conditions and strict Bacteriological control, of all Surgical Catguts—right from the selected fresh intestines to the finished sterile ligature ready for immediate use at the Operating Table.

Packed in hermetically sealed glass tubes; on spools; or in bulk lengths. 10, 20, 30 and 40-day muscle absorption; Iod-Aseptic (Iodized), Tanned, Formalin, Chromic, Sulpho-Chromic, &c.

We are Contractors to H.M. Admiralty and War Office; and supply largely to the leading Civil and Military Hospitals throughout the United Kingdom.

INQUIRIES INVITED.

G. F. MERSON & CO.,

Manufacturing Chemists, EDINBURGH.

ELASTIC GUM SURGICAL INSTRUMENTS



Catheters and Bougies, in Black or Brown Gum, and Finest Silk Web. Specula, Rectal and Œsophageal Instruments.

Horse Catheters and Cattle Probangs. Wholesale and Export only. Price List from the Manufacturers.

MASON BROS. & CHAPMAN, 107 Whitecross St., LONDON, E.C.

"Corruganza" SEAMLESS Ointment Boxes.

GREASEPROOF.

BRITISH MADE.

Better than the old Willow Boxes, because they are stamped out of one piece, and the bottoms cannot fall out.

MILLIONS SOLD ALREADY. REPEAT ORDERS DAILY.

Send at once for Price List (Wholesale or Export only) to the Manufacturers-

HUGH STEVENSON & SONS, Ltd., Summerstown, London, S.W.

INSETS

The distribution of Price Lists, Circulars, and other advertising literature of that kind in the form of Insets is one of the best methods of advertising, and is invariably productive of good results.

The next opportunity for distribution of this kind to the principal firms connected with the trade at home and abroad will be in the

Summer Issue of "The Chemist & Druggist;"

which will be published on JULY 28, 1917. All particulars regarding the production of these Insets, charges for distribution, &c., can be obtained from

THE PUBLISHER, "THE CHEMIST & DRUGGIST," 42 CANNON STREET, LONDON, E.C.

WM. H. BOWDLEAR

Formerly of the W. H. BOWDLEAR CO.

respectfully solicits business from any and all former correspondents, either on a commission basis or otherwise.

CRUDE REFINED and BLEACHED

BEESWAX

Quotations given in £ sterling, per cwt.

220 DEVONSHIRE STREET (Room 201a), BOSTON, MASS., U.S.A.

Cable Address: "BURNSIDE." Code: ABC. 5th Edition.

EUCALYPTUS OIL, Rectified

Eucalyptol content 70 to 80% Optical rotation 0 to 1 Specific Gravity 919 to 928

ABSOLUTELY FREE FROM PHELLANDRENE.

Quotations by cable. Wholesale trade only.

BURNSIDE & COMPANY

EUCALYPTUS OIL DISTILLERS.

EAGLEHAWK, VICTORIA, AUSTRALIA.

WE CAN OFFER FIRST HAND

SODA SULPHATE (PEA XTALS.)
ACETIC & OXALIC ACID.

ACID TARTARIC. QUININE. FORMALDEHYDE.

SODA CARBONATE (PEA XTALS.) SODA BENZOATE.

A.D.CHESTER & CO., LTD.

Chemical Works, Drummond Road, Bermondsey, London.

Telephones - Nos. 6 and 4782 HOP.

OILS

CASTOR. GROUNDNUT.

R. D. GALBRAITH & CO.,
11 BILLITER SQUARE, LONDON, E.C.

Moving the Goods!

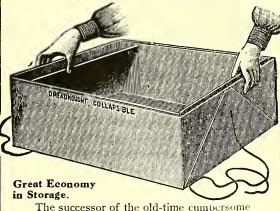
This is the Box

which is being talked about for this purpose.

THE

"DREADNOUGHT" Collapsible Box

A pair of hands the only tools needed.

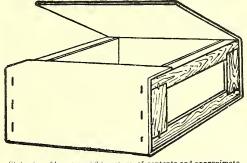


The successor of the old-time cumbersome wood packing-case.

A trial will convince you of the soundness of our claim that the "DREADNOU GHT" Box is a packing proposition of real importance.

Where Boxes of EXCEPTIONAL strength are required we recommend our

"HERCULES" Wood-End Boxes.



State size of boxes, weight, nature of contents and approximate quantities required, when all information will be forthcoming

High-Class Printed and Lithographed
Folding Cartons & Advertising Dummies
POSTAL and OPTICIANS' BOXES.

SPECIALITY—LABELS SHOWCARDS, &c. (Lithographed and Varnished) executed in one or more colours.

CUT-OUTS for Counter and Shop Window Display.

Address the Sole Makers:

GLOBE BOX CO. (Proprietors: NYDE, CHESHIRE.

Telephone No. 115 Hyde (2 lines).

May, Roberts' Traveller.

No. 4023 CITY.

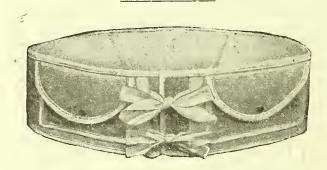
JANUARY 27, 1917.

LONDON & DUBLIN.

THE THREE THAT HELD THE BRIDGE.

One of the most difficult problems associated with the collecting together of masses of men under insanitary conditions is the inevitable plague of body parasites which ensues.

The authorities are doing their utmost to deal with the situation, and material assistance is being rendered by chemical manufacturers and the friends of soldiers themselves.



THE

WINTER TRENCHMAN BODY BELT

PROTECTS AGAINST

VERMIN & CHILLS.

Grey Angola Flannel, lined, with Whalebone support.

With Money Pockets,

at 18/- per doz.

3 doz. lots ,, 17/6 6 ,, 17/-

Without Money Pockets,

at **13/6** per doz. 3 doz. lots , **13**/- ,

6 ,, **12/6**

5% Discount.

THE ORIGINAL TRENCH POWDER.



2/**3** per doz. 1 gross lots, **24**/- gross.

TRENCH OINTMENT.



3/6 per doz. 1 gross lots, **39**/- per gross.

5% Discount.

MAY, ROBERTS & CO., LTD. 7 to 13 Clerkenwell Rd., LONDON, E.C.

AND AT 16 WESTMORELAND STREET, DUBLIN,

"At this moment a customer came in. He wanted Formamint, was offered 'formalin,' refused it, and went."

Exactly a year ago this incident was reported in the "Evening News" by a journalist interviewing a London chemist.



THIS is a true story—typical of many other cases we have heard of—and it points its own moral!

Even in those days people wanted genuine Formamint and would have it.

Now, when they know it to be British, they are more than ever determined to have "the real thing."

Keep an ample supply of genuine Formamint in stock, and remember that there is no more seasonable and profitable line to push at this time of the year.

THE BRITISH PURCHASERS OF SANATOGEN, ETC., 12, CHENIES STREET, LONDON, W.C.



Fytte for ye Kyng and Quene

THE STANDARD SERIES OF TOILET PREPARATIONS

